# cRAY TOOLS 



- INDUSTRIAL
- MARINE


## GRAY

GRAY TOOLS . . . A symbol of Canadian achievement favorably known to industry and other users in all lands where Canada's commerce grows.

Gray Hand Tools are produced from the finest steels and alloys backed by creative engineering and time tested designs.

This modern progressive manufacturing industry is entirely owned and operated by Canadians proud of their more than sixty years of achievement in the production and marketing of quality hand tools. You Can't Buy Better Tools.

A quality tool line priced right supported by equitable policies related to distribution and guarantee.


## A Canadian Enterprise Using Products of Canadian Mines and Industries FOR OVER 60 YEARS



## STATEMENTS OF POLICY

## Warranty on Gray Tools

1. Guarantee - All Gray Tools are guaranteed against defects in workmanship or material, and any tool failing to live up to this guarantee will be replaced or repaired free of charge.
2. Abuse - Free repair or replacement cannot be made if inspection shows that a tool has been hammered, used with any device for adding extra leverage, ground thinner, changed in design, or broken from use for purposes other than those for which it was designed.
3. Non-Guaranteed Tools - Because of their nature, certain tools are liable to abuse and are not subject to free replacement. Throughout this catalogue all such tools will be marked by a Black Dot ( $\bullet$ ).

## IMPACT SOCKETS AND ATTACHMENTS ARE NOT GUARANTEED.

## 4. Normal Wear and Tear -

Ratchets
Flex Handles
Universal Joints
Wheel Pullers

Adjustable Wrenches
Screwdrivers
Punches and Chisels
Buckingham Thread Restorers

Tools of the above types which show signs of wear from long use can usually be reconditioned by replacement of worn parts or regrinding cutting edges. Such tools may be sent in to the jobber or to the factory for repair, and they will be repaired if possible and a service charge made.
5. Claims - If any shipment from our factory has been damaged in transit, a claim must be made immediately upon the carrier.
Tool Boxes, in particular, are very susceptible to damage in transit and should be opened and inspected immediately upon arrival at destination.

## WHOLESALER RETURNS

Gray Tools acceptable for return under conditions stated hereunder will be confined to those hand tools listed in this catalogue or subsequent issues thereof. Such tools will be of current design, finishes and markings.
At any time during the year wholesalers may submit written information on tools eligible for return and considered surplus in inventory. Written return authorization will be forwarded to the wholesaler subject only to prepaid transportation and other conditions stated herein. Valuation of tools for return will not exceed at current factory cost any amount greater than ten per cent of purchases from us during the previous twelve month period. A handling charge of ten per cent will apply. Factory allowance will be in form of book credit to apply against current or future purchases from us.
Tools that are to be returned must be carefully packed to avoid domage in transit - otherwise an extra twenty per cent may be charged for re-finishing.

# 1/4" Drive Attachments and Sets 



Our very best set, containirig most sockets and accessories required by the master mechanic. All tools are made of the finest alloy steels, heat treated and brightly chromed. This set will give a life-time of service. Packed in attractive metal box No. 2285. $11^{\prime \prime} \times 51 / 2^{\prime \prime} \times 131^{\prime \prime}$.

| No. | Description |
| :---: | :---: |
| V6 | 3/16" SH Socket |
| V7 | 1/32" " " |
| V8 | 1/4" " " |
| V9 | 9/32" " |
| V10 | 5/6" " " |
| V11 | 11/32" " ${ }^{\prime \prime}$ |
| V12 | 3/8" " " |
| V14 | 7/6" " " |
| V16 | 1/2" " " |
| VL8 | 1/4" Deep SH Socket |
| VL10 | 5/6" " " " |
| VLI1 | 11/32" " " |
| VL12 | 3/8" " " |
| VL14 | 7/6" " " |
| V606 | $6^{\prime \prime}$ Extension |
| V760 | Universol Joint |

No. VS 250 Set
Contains 25 pieces $3 / 16^{\prime \prime}$ to $1 / 2^{\prime \prime}$


| No. | Description |
| :--- | :--- |
| V780 | $1 / 4^{\prime \prime}$ Drive Insuloted |
|  | Hondle, $6^{\prime \prime}$ Long |
| E02 | Ignition Screwdriver |
|  |  |
| MF6 | $1 / 4^{\prime \prime}$ Flex Extension |
| FG18 | Ign. Feeler Gouge |
| 518 | Ignition Plier |
| V25 | $1 / 4^{\prime \prime}$ Reversible |
|  | Rotchet, $5^{\prime \prime}$ long |
| V26 | $51 / 2^{\prime \prime}$ Flex Hondle |
| V34 | $1 / 4^{\prime \prime}$ Dr. Screwdriver |
| V602 | $2^{\prime \prime}$ Extension |

## 1/4" Drive Socket Sets <br> EXTRA SMALL SERIES

These midget sockets and attachments are the ultimate in precision design and manufacture. The small head reversible ratchet, tiny handles and extra thin wall lock-on sockets are produced from the finest alloy steels and all are chrome plated. Created for motor tuneup specialists and those who service starting - lighting - ignition instruments and radio. They will prove a welcome addition to any tool equipment. Each individual piece available separately from open stock.

No. Vs 100 Set
Contains 10 Pieces — $3 / 16^{\prime \prime}$ to $1 / 2^{\prime \prime}$


The ideal basic set for ignition and electrical work. Includes nine sockets and a versatile drive handle. All within a handy metal case No. 2281. $7^{\prime \prime} \times 3^{1 / 4^{\prime \prime}} \mathrm{x} 1^{1 / 4 \prime \prime}$.

| No. | Description |  |  | No. |  | Desc | otion |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\checkmark 6$ | 3/16" |  | Sacket | $\checkmark 11$ |  | "" ${ }^{\prime \prime}$ |  |
| $\vee 7$ | 7/32" |  |  | $\vee 12$ |  | " |  |
| $\checkmark 8$ | 1/4" | " | " | V14 |  | " " | " |
| V9 | 9/32" | " |  | $\vee 16$ |  | S.H. | Sacket |
| V 10 | $5 / 16^{\text {N }}$ |  | " | $\vee 780$ |  | Drive | Handle |

No. VS 120 Set
Contains 12 Pieces - $3 / 16^{\prime \prime}$ to $1 / 2^{\prime \prime}$


A complete set made from special heat treated alloy steel. Mirror chrome finished for long life. A must for any mechanic. Packed in sturdy metal box No. 2281. $7^{\prime \prime} x$ $3^{1 / 4}{ }^{\prime \prime} \times 11^{1 / 4}$ "。

| No. | Description |  |  | No. | Description |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| V6 | 3/16" | S.H. | Sacket | V12 |  | "" | " |
| $\vee 7$ | 7/32 | " |  | V 14 |  | " " |  |
| $\vee 8$ | 1/4" | " | " | $\checkmark 16$ |  | " " | " |
| V9 | \% $3^{12}$ | " | " | $\checkmark 25$ |  | v. Ra | + $5^{\prime \prime}$ |
| V 10 | 5/6" | " | " | $\checkmark 26$ |  | x Ha | 51/2" |
| V 11 | 11/32 | " |  | $\vee 603$ |  | Exten |  |

Contains 18 Pieces — $3 / 16^{\prime \prime}$ to $1 / 2^{\prime \prime}$


This set contains a most complete range. Ratchet, extensions, flex handle, sockets, universal joint and drive handle. A life long set for the professional. Packed neatly in box No. 2382. $91 / 2^{\prime \prime} \times 4^{\prime \prime} \times 11 / 4^{\prime \prime}$.

| No. | Description |  |  | No. | Description |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\checkmark 6$ | 3/6" | S.H. | Socket | VL8 | 1/4"Deep SH Socket |
| $\vee 7$ | 7/32" | " | " | VL10 | 寿" " " " |
| $\checkmark 8$ |  | " | " | VL12 | 3/8" " " |
| $\checkmark 9$ | 9/32 | " | " | $\checkmark 25$ | Rev. Rotchet 5" |
| $\checkmark 10$ |  | " | " | $\checkmark 26$ | Flex Hondle 51/2" |
| V11 | 11/32" | " | " | V 602 | 2" Extensian |
| $\vee 12$ |  | " | " | $\checkmark 606$ | $6^{\prime \prime}$ Extension |
| $\vee 14$ |  | " | " | $\vee 760$ | Universol joint |
| $\vee 16$ |  |  |  | $\vee 780$ | 1/4" Drive Insuloted Hondle, 6" |

## $3 / 8^{\prime \prime}$ Drive Handles and Attachments

The $3 / 8$ " Drive Attachments have become a must for all good mechanics' tool kits. The chrome plated, alloy steel, extra slim handles and attachments, are designed to allow the mechanic to get at the tighest spots on modern motors, aircraft and refrigeration units with ease.


| No. | Description | No. | Description | No. | Description |
| :---: | :---: | :---: | :---: | :---: | :---: |
| LT 20 R | 5/8" Plug Socket | T 4 | 6" Extension | - T 34 | Screw Driver Socket Blode |
| LT 26 R | Spark Plug Socket 13/is" - 12 | T 5 | $12^{\prime \prime}$ |  | $3 / 8 " \times 1 / 16^{\prime \prime}$ wide |
|  | pt. extra deep with rub- | T 6 | $20^{\prime \prime \prime}$ | $\text { T } 37$ | Flex Head Ratchet |
|  | ber insert ond $3 / 4^{\prime \prime}$ hex on | $\begin{array}{r}19 \\ \hline 27\end{array}$ | 161/4" Speeder | $\text { T } 42$ | 61/8" Screw Driver Type |
|  | autside at drive end. | T 27 | Drag Link Skt. $113^{\prime \prime} \times 11 / 16^{\prime \prime}$ blade | T 42 | 61/8 Screw Driver Type Handle |
| MF 8 | 3/8" Flexible Extensian 8" | T 30 | blade <br> 9" Flex Handle | T 57 | 71/2" Reversible Ratchet |
| T 1 | 11/2" Extension | T 31 | $3^{\prime \prime}$ Extension | T 58 | Ratchet Adoptar |
| T 3 | Universal Joint |  |  |  |  |

## 3/8" Drive Sockets



Universal Joint Sockets


Positive Positions

| Single Hexogon | Opening | Double Hexogon |
| :---: | :---: | :---: |
| TU 120 | $3 / 8^{\prime \prime}$ | TU 12 |
| TU 140 | $7 / 6^{\prime \prime}$ | TU 14 |
| TU 160 | $1 / 2^{\prime \prime}$ | TU 16 |
| TU 180 | $9 / 6^{\prime \prime}$ | TU 18 |
| TU 200 | $5 / 8^{\prime \prime}$ | TU 20 |
| TU 220 | $11 / 6^{\prime \prime}$ | TU 22 |
| TU 240 | $3 / 4^{\prime \prime}$ | TU 24 |



## Wrenches for Socket Head Screws - $3 / 8^{\prime \prime}$ Drive

These wrenches are made for all the popular sizes of set screws and cap screws. They are strong, easy to use and the bits are replaceable.

| No. | Across Flats | $\left\lvert\, \begin{gathered} \text { Bit } \\ \text { Length } \end{gathered}\right.$ | Length Overall |
| :---: | :---: | :---: | :---: |
| -TW 4 | 1/8" | 11/4" | 2" |
| -TW 5 | 5/2" | 11/4" | 2" |
| -TW 6 | 3/18" | 11/4" | 2" |
| -TW 7 | 7/32 | 11/4" | 2" |
| -TW 8 | $1 / 4$ " | 11/4" | 2" |
| -TW 10 | 5/6" | 1516" | 2" |
| -TW 12 | 3/8" | 13/8' | $2^{\prime \prime}$ |



## Wrenches for Phillips Head Screws - $3 / 8^{\prime \prime}$ Drive

These wrenches are provided for body work and door frames where it is necessary to exert considerable force to break loose or reset a Phillips fastener. Blades retained by means of hexagon set screw. Bits are replaceable.

| No. | Phillips Point | Bit <br> Length | Length Overall | Screw Sizes |
| :---: | :---: | :---: | :---: | :---: |
| -TP 1 | No. 1 | 11/4" | 115/16" | No. 4 and Smaller |
| -TP 2 | No. 2 | 11/4" | 115/16" | Na. 5 to No. 9 inc. |
| -TP 3 | No. 3 | 11/4" | 115/16" | No. 10 to No. 16 inc. |
| -TP 4 | Na. 4 | 11/4" | $115 / 16^{\prime \prime}$ | No. 18 and larger |

## 3/8" Drive Socket Trays



Contains eleven double hexagon regular length sockets. Numbers
T $11 \mathrm{SH}-1 / 4^{\prime \prime}$ to $7 / 8{ }^{\prime \prime}$ T 8-T 28 less T 19 packed in steel tray. No. 1912.


Contains eleven single hexagon regular length sockets. Numbers TH8S - TH 28 packed in steel tray No. 1912.

LT $9 \mathrm{SH}-3 / 8^{\prime \prime}$ to $7 / 8^{\prime \prime}$


Contains nine single hexagon extra deep sockets. Numbers T 120-T 280 packed in steel tray. No. 1915.

Contains nine double hexagon extia deep sockets. Numbers LT 12-LT 28 packed in steel tray. No. 1915.

LT 11 DH - $1 / 4^{\prime \prime}$ to $7 / 8^{\prime \prime}$


Contains eleven double hexagon extra deep sockets. Numbers LT 8 LT 28 packed in steel tray. No. 1911.

LT $11 \mathrm{SH}-1 / 4^{\prime \prime}$ to $7 / 8^{\prime \prime}$


Contains eleven single hexagon extra deep sockets. Numbers T 80 - T 280 packed in steel tray. No. 1911.

TUJ 6 Set $-3 / 8^{\prime \prime}$ to $3 / 4^{\prime \prime}$


Contains seven single hexagon regular length Flex sockets. Numbers TU 120-TU 240 packed in steel box. No. 2281.


## TG 34 Set

Contains 34 Pieces - $5 / 16^{\prime \prime}$ to $15 / 16^{\prime \prime}$

## TG 34 Set

Here is a set containing the complete line of standard double hexagon sockets from $5 / 0^{\prime \prime}$ to $7 / /^{\prime \prime}$, also the complete line of deep double hexagon sockets from $3 / 8^{\prime \prime}$ to $7 / 8^{\prime \prime}$, and thirteen attachments. All tools are made of selected alloy steel, chrome plated and polished. Packed in box No. 2203. Size $19^{\prime \prime} \times 7^{\prime \prime} \times 7 \frac{1}{2}$ ".

The TG 34 Set includes one each of the following

| Size | No. | Description |  | Size | No. | Description |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 5/6" | T 10 | D.H. | Socket | 1516" | T 305 | D.H. | Sock |  |
| 3/8" | T 12 |  |  | 3/8" | LT 12 |  | D.H. | Socket |
| 776" | T14 | " | " | 7/10" | LT 14 |  |  |  |
| 1/2", | T16 | " | " | 1/2" | LT 16 | " | " | " |
| 916", | T18 | " | " | 9/6" | LT 18 | " | " | " |
| 1932 " | T 19 | " | " | $5 / 81$ | LT 20 | " | " | " |
| 5/8" | T 20 | " | " | 11/6" | LT 22 | " | " | " |
| 11/16" | T 22 | " | " | $3 / 4$ " | LT 24 | " | " | " |
| 3/4" | T24 | " | " | $13 / 16$ | LT 26 | " | " | " |
| 13/18" | T 26 |  |  | 7/8" | LT 28 | " | " | " |
| 7/8' | T 28 |  | " | 13/6" | LT 26R | Spork | Plug | Socke |

and the following attachments

| No. | Description | No. | Description |
| :---: | :---: | :---: | :---: |
| T 3 | Universol Joint | TP 2 | Hexheod Socket |
| T31 | 3" Extension | T 34 | Screw Driver Socket |
| T 4 | 6" " | T 42 | 61/8" Screw Driver Type |
| T 5 | 12" " |  | Handle |
| T9 | 161/4" Speeder | T 57 | 71/2" Reversible Rotchet |
| T 27 | Drog Link Socket | 4215 | 3/8'8 $\times 1 / 2^{\prime \prime}$ odoptor |
| T 30 | 9" Flex Handle |  | 1/8 $\times 1 / 2$ odoplor |

## TG 27 Set

TG 27 Set
Contains 27 Pieces - $1 / 4^{\prime \prime}$ to $7 / 8^{\prime \prime}$


This set contains the most complete range of single hex regular and deep sockets along with all necessary attachments Packed in box. No. 2201. Size $20^{\prime \prime} \times 6$ " $\times 31 / 2^{\prime \prime}$.

The TG 27 Set includes one each of the following

| Size | No. | Description | Size | No. | Description |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1/4" | TH 8S | S.H. Socket | $3 / 8$ | T 120 | Deep S.H. Socket |
| 5/10, | TH 10 |  | $7 / 10$ | T 140 | "/ " |
| 3/8" | TH 12 | " " | 1/2" | T 160 | " " |
| $7 / 1{ }^{\prime \prime}$ | TH 14 | " " | \%6" | T 180 | " " " |
| 1/2" | TH 16 | " " | 5/8" | T 200 | " " " |
| 9/6" | TH 18 | " " | 11/8" | T 220 | " " " |
| 5/" | TH 20 | " " | $3 / 4{ }^{\prime \prime}$ | T 240 | " " " |
| "1/1" | TH 22 | " " | 13/18" | T 260 | " " " |
| $3 / 4^{\prime \prime}$ | TH 24 | " " | 78" | T 280 | " " " |
|  |  |  | 13/1" | LT 26R | Spark Plug Socket |

and the following attachments

| No. | Description | No. | Description |
| :---: | :---: | :---: | :---: |
| T 3 | Universal Joint | T9 | 161/4" Speeder |
| T31 | 3" Extension | T 30 | 9 9' Flex Hondle |
| T 4 | 6 ' ${ }^{\prime \prime}$ | T34 | Screw Driver Socket |
| T 5 | 12" | T 57 | 71/2" Reversible Rotchet |

## 3/8" Drive Socket Sets

## TG 21 Set

Contains 21 Pieces - $1 / 4^{\prime \prime}$ to $15 / 16^{\prime \prime}$
This set contains the popular straight wall sockets with double hexagon openings. Designed especially for those who want quality with a minimum investment. Contains 21 pieces each selected for the large number of uses to which it may be put. All pieces are made of the finest alloy steel, chrome plated. Packed in box No. 2201. Size $20^{\prime \prime} \times 6^{\prime \prime} \times 3^{1 / 2 "}$ "。

The TG 21 Set includes one each of the following

| Size | No. | Description | Size | No. | Description |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $1 / 4{ }^{\prime \prime}$ | T 8 | D.H. Socket | 5/8" | T 20 | D.H. Sacket |
| 5/10" | T 10 | " | 11/10" | T 22 |  |
| 3/8" | T 12 | " " | $3 / 4.1$ | T 24 | " " |
| 7/1" | T 14 | " | 13/10" | T 26 | " " |
| 1/2" | T 16 | " | 7\%" | T 28 | " |
| 9\%10 | T18 | " "' | 15/1" | T 305 | " " |
| 19/3" | T 19 |  |  |  |  |

and the following attachments

| No. | Description | No. | Description |
| :---: | :---: | :---: | :---: |
| T 3 | Universal Jaint | T 27 | Drag Link Sacket |
| T31 | 3" Extension | T 30 | 9" Flex Handle |
| T 4 | 6" " | T 57 | 71/2" Reversible Rotchet |
| T 5 | $12 " \quad "$ | LT 26 R | ${ }^{131616}{ }^{\prime \prime}$ Plug Socket |

## TG 15 Set

Contains 15 Pieces - $5 / 16^{\prime \prime}$ to $7 / 8^{\prime \prime \prime}$
This TG 15 Set includes the 8 most popular $3 / 8^{\prime \prime}$ drive Single Hexagon Sockets together with two extensions, Universal Joint, Reversible Ratchet, Sliding " $T$ " Handle, Flexible Handle and Cross Bar. This selection is ideally suited to aviation and light automotive service work. Packed in box No. 2285. Size $11^{\prime \prime} \mathrm{x}$ $51 / 2^{\prime \prime} \times 13 / 2$ ".

The TG 15 Set includes one each of the following

| Size | No. | Description | No. | Description |
| :---: | :---: | :---: | :---: | :---: |
| 5/16" | TH 10 | S.H. Socke $\dagger$ | T 3 | Universal Jaint |
| 3/8' | TH 12 |  | T 31 | 3" Extensian |
| 7/1" | TH 14 | " " | T 4 | 6" " |
| 1/2" | TH 16 | " " | T 30 | 9" Flex Handle |
| 916 | TH 18 | " " | T 57 | 71/2" Reversible Ratchet |
| 5/8" | TH 20 | " " |  |  |
| 11/16" | TH 22 | " " |  |  |
| 3/4" | TH 24 | " |  |  |
| 13/16" | TH 26 | " " |  |  |
| 7/8" | TH 28 | 14 |  |  |

## TG 10 Set

Contains 10 Pieces — $3 / 8^{\prime \prime}$ to $3 / 4^{\prime \prime}$
The TG 10 is an excellent basic kit and is the ideal beginning toward a complete $3 / 8$ " drive socket set. It features high Gray quality. Packed in box No. 2282. Size $9^{1 / 2^{\prime \prime}} \times 4^{\prime \prime} \times 11^{1 / 1 "}$.

The TG 10 Set includes one each of the following

| Size | No. | Description | Size | No. | Description |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 3/8" | T 12 | D.H. Socket | 11/16" | T 22 | " " |
| $7 / 1{ }^{\prime \prime}$ | T 14 | " | $3 / 4{ }^{\prime \prime}$ | T 24 | " " |
| $1 /{ }^{\prime \prime}$ | T 16 | " " | $3^{\prime \prime}$ | T 31 | Extension |
| 9/6" | T 18 | " " | 71/2" | T 57 | Reversible Ratche |
| 5/8" | T 20 | " " | 9 " | T 30 | Flex Handle |



TG 15 Set


TG 10 Set


# 3/8" Drive Socket Set and Displays 

| Size | No. | Description |  | Size | No. | Description |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1/4" | T 8 | D.H. S | Socket | 3/8" | TU 12 | Flex Socket |
| 516" | T 10 |  | " | 7/10" | TU 14 | "/ " |
| 3/8" | T 12 |  | " | $1 / 2$ " | TU 16 | " " |
| 7/10" | T 14 |  | " | 2\%18 | TU18 | " " |
| 1/2" | T 16 |  | " | 5/8" | TU 20 | " " |
| 96" | T 18 | " | " | $11 / 10^{\prime \prime}$ | TU22 | " " |
| 1932" | T 19 |  | " | 3/16 | TU24 | " |
| 5/8" | T 20 | " | " | 3/4" | TU24 | " " |
| 11/6" | T 22 | " | " | 13/10" | LT 26R | Spark Plug Socket |
| $3 / 4{ }^{\prime \prime}$ | T 24 | " | " |  | T 1 | $11 / 2^{\prime \prime}$ Extension |
| 13/6" | T 26 | " | " |  | T 3 | Universol Joint |
| 7/8' | T 28 |  | " ${ }^{\prime}$ |  | T 31 | 3" Extension |
| 1/4" | LT 8 | Deep | D.H. Socket |  | T 4 | 6 " " |
| 5/16" $3 / 8$ | LT 10 LT 12 |  | "، ", |  | T 5 | 12" " |
| $3 / 8 \prime \prime$ $7 / 16$ | LT 12 LT 14 | "/ | "" " |  | T 9 |  |
| 7/16" $1 / 2$ | LT 14 LT 16 | "' | "، " |  | T 30 | 9" Flex Handle |
| $1 / 2 "$ $916 "$ | LT 16 LT 18 | " | " " " |  | T 30 T 34 | Screw Driver |
| 5/8' | LT 20 | " | " |  |  | Socket |
| 1116" | LT 22 | " | " " |  | T 305 | 15/6" D.H. Socket |
| $3 / 4{ }^{\prime \prime}$ | LT 24 | " | " " |  |  |  |
| 13/6" | LT 26 | " | " |  | T 42 | 61/8" Screw Driver |
| 7/8' | LT 28 | " | " " |  |  | Type Handle |
|  | $\begin{array}{ll}\text { TP } & 1 \\ \text { TP } & 2\end{array}$ | $\begin{aligned} & \text { \#1 P1 } \\ & \# 2 \end{aligned}$ | Phillips |  | T 57 | 71/2" Reversible Rotchet |
|  | TP 3 | \#3 | " |  | T 58 | Ratchet Adaptor |
|  | TP 4 | \#4 | " |  | MF 8 | Flex extension |

## TG 48 Set

Contains 48 pieces - $1 / 4^{\prime \prime}$ to $15 / 1^{\prime \prime}$. packed in box No. 2203. Size $19^{\prime \prime} \times 7^{\prime \prime} \times 71 / 2{ }^{\prime \prime}$.


The Mechanics Tool Centre - $1 / 4^{\prime \prime} \& 3 / 8^{\prime \prime}$ Drive Sockets \& Attachments - A neat and compact $2^{\prime} \times 2^{\prime}$ - Each tool is outlined and marked - Durable mar-proof white epoxy painted

WR 50 AUTOMOTIVE DISPLAY BOARD



## 1/2" Drive Attachments

These Handles and Attachments are forged slimmer and lighter for your convenience, due to the use of the finest alloy steel, scientifically heat treated to assure maximum strength. These Gray Tool attachments are highly polished and heavily chrome plated.

HANDLES AND ATTACHMENTS



| No. | Description | No. | Description | No. | Description |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 653 | 15" Flex Hondle | 709 | Universal Joint | 5297 | 10" Reversible Rotchet |
| 853L | $18^{\prime \prime}$ " " | 7185 | 2" Forged Extension | 5297 L | 15" Reversible Rotchet |
| 686 | 191/4" Speeder Rev. Grip | 718 | 5" " " | 677 | 141/2" Flex Heod Rotchet |
| 797 | $1 / 2^{\prime \prime}$ Drive Rotchet Adoptor | 719 | $10^{\prime \prime}$ " " | - 734 | Screw Driver Socket |
|  |  | 720 | -20" " ${ }^{\prime \prime}$ | 2591 | Stud Remv. ( $5 / 6{ }^{\prime \prime}$ to $5 / 8^{\prime \prime}$ ) |

# 1/2" Square Drive Sockets 



# 1/2" Drive Socket Trays 

$$
\text { SW } 15 \mathrm{~T}-3 / 8^{\prime \prime} \text { to } 11 / 4^{\prime \prime}
$$


-
Contains 15 regular length double hexagon sockets. Numbers $1406 \mathbf{- 1 4 3 6}$ less $\mathbf{1 4 1 9 , 1 4 2 1 , 1 4 2 5 , 1 4 3 1 , ~ p a c k e d ~ i n ~ s t e e l ~ t r a y , ~}$ No. 1913.


Contains 14 regular length single hexagon sockets. Numbers 406-436, less 433, packed in steel tray, No. 1919.


Contains ten extra deep double hexagon sockets. Numbers LD 16 - LD 36 less LD 34, packed in steel tray, No. 1916.

$$
\text { LDS } 9 \text { Set }-1 / 2^{\prime \prime} \text { to } 1^{\prime \prime}
$$



Contains nine extra deep single hexagon sockets. Numbers LDS 16 - LDS 32, packed in steel tray, No. 1914.

## Master Set

# MS 103 Set-Complete Contains 103 Pieces 

This Master Set MS 103 contains the finest and most complete set of Gray Tools ever assembled in one kit. 103 pieces - including one of almost every description to do practically any job encountered. Complete sets of sockets and attachments, box wrenches, and combination wrenches, pliers, hammers, punches, chisels and screw drivers - all are included. The complete assortment is packed in a massive sixdrawer metal chest finished in red. It has strong carrying handles and is equipped with a barrel type lock with key. Chest measures $26^{\prime \prime} \times 12^{\prime \prime} \times 14^{\prime \prime}$. No. 2250.

COMPLETE CONTENTS LISTED BELOW

Combination Wrenches

| No. | Openings | Length |
| :---: | :---: | :---: |
| 3112 | $3 / 8{ }^{\prime \prime}$ | 5" |
| 3114 | 716 | 53/8" |
| 3116 | 1/2" | 6 " |
| 3118 | 9/16 | $63 / 4{ }^{\prime \prime}$ |
| 3120 | $5 / 8$ " | 73/4" |
| 3122 | 11/6" | 85/8" |
| 3124 | $3 / 4$ " | $91 / 2{ }^{\prime \prime}$ |
| 3126 | 13/6" | 101/2" |
| 3128 | 7/8' | $1{ }^{\prime \prime}$ |
| 3130 | 15/1" | 131/2" |
| 3132 | 1" | 131/2" |

Box Wrenches

| 2840 | $3 / 8^{\prime \prime}$ \& 7/6" |
| :---: | :---: |
| 2843 | $1 / z^{\prime \prime}$ \& 9/6" |
| 2846 | $5 / 8{ }^{\prime \prime}$ \& 11/6" |
| 2849 | $34^{\prime \prime}$ \& $25 / 32^{\prime \prime}$ |

## Chisels

| C 2 | Flot $1 / 2^{\prime \prime} \times 512^{\prime \prime}$ |
| :---: | :---: |
| C 3 | " 5/8" $\times 61 / 4 "$ |
| C 4 | $3 / 4{ }^{\prime \prime} \times 61 / 2^{\prime \prime}$ |

Punches

| C 22 | Salid | $3 / 32{ }^{\prime \prime}$ | Pt. $\times 61 / 4{ }^{\prime \prime}$ |
| :---: | :---: | :---: | :---: |
| C 28 | Pin | 1/8" | Pt. $\times 5 \frac{1 / 4}{}{ }^{\prime \prime}$ |
| C 30 | " | $1 / 4{ }^{\prime \prime}$ | Pt. $\times 67 / 8{ }^{\prime \prime}$ L. |

## Screw Drivers

| 04 | $4 "$ | Rd. | Shonk | $71 / 2^{\prime \prime}$ | L. |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 06 | $6 "$ | $\prime \prime$ | $" \prime$ | $101 / 4 \prime$ | L. |
| 08 | $8^{\prime \prime}$ | $\prime \prime$ | $"$ | $12 \frac{1}{2}$ | L. |
| 006 | $6^{\prime \prime}$ | $"$ | Electricions |  |  |

Pliers

| B 17 | Diogonal 6" L. |
| :--- | :--- |
| 258 | Water Pump 91/2" L. |
| 810 | Cambination 8 $8^{\prime \prime} \mathrm{L}$. |
| 518 | I Initian Type 5" ${ }^{\prime \prime}$. |
| 522 | Battery Type 8" L. |

Hammers

| 212 | G |
| :--- | :--- |
| 212 K | 1 lb. Ball Pein |
| 4 oz. 8all Pein |  |
| PH 15 | $1 / 2 \mathrm{lb}$. Saft Face |

## Master 1/2" Drive Sets

SW 47 Set
Contains 47 Pieces $3 / 8^{\prime \prime}$ to $11 / 4^{\prime \prime}$


A good range of $1 / 2$ inch drive sockets and attachments, packed in box. No. 2221. Size 21 " $\times 81 / 2$ " $\times 9^{3 / 4}$ ".

| Number | Opening | Description | Number | Opening | Description |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1406 | $3 / 8{ }^{\prime \prime}$ | D.H. Socket | LD16 |  | Deep D.H. Socket |
| 1407 | 7/16" |  | LD18 | $9 / 10^{\prime \prime}$ | " " " |
| 1408 | 1/2" | " " | LD20 | 5/8" | " " " |
| 1409 | 9/16" | " " | LD22 | 11/18" | " " |
| 1419 | $19 / 32^{\prime \prime}$ | " | LD24 | $3 / 4{ }^{\prime \prime}$ | " " |
| 1410 | $5 / 8$ " | " " | LD26 | 13/10" | " ${ }^{\prime \prime}$ |
| 1421 | $21 / 32^{\prime \prime}$ | " | LD28 | $7 / 8$ " | " " |
| 1411 | 11/16" | " " | LD30 | 1516' | " |
| 1412 | 3/4" | " " | LD32 | 1 " | " " " |
| 1425 | $25 / 32^{\prime \prime}$ | " | LD34 | 11/16" | " " " |
| 1413 | 1316" | " | LD36 | 11/8" | " " " |
| 1414 | 78" | " " | 406 | 3/8" | Single Hex Socket |
| 1415 | 15/16" | " " | 407 | 710 | " " " |
| 1432 | 1" | " " | 408 | $1 /{ }^{\prime \prime}$ | " " " |
| 1433 | 11/16" | " " | 409 | \%/16 | " " " |
| 1434 | 11/8" | " " | 410 | 5/8" | " " " |
| 1435 | 13/16" | " " | 411 | $11 / 16$ | " " " |
| 1436 | $11 / 4$ " | " " | 412 | 3/4" | " " " |
|  |  |  | 413 | 13/10" | " |
| 709 | Universol | l Joint | 414 | $7 / 8$ | " " |
| 7185 | 2" Forg | Extension | 415 | 15/16," | "" " |
| 718 | 5" |  | 5297 | 10" | Reversible Rotchet |
| 719 | $10^{\prime \prime}$ | " | 686 | $19^{\prime \prime}$ | Speeder Rv. Grip |
| 720 | 20" | " | 653 L | 18" | Flex Hondle |

SW 70 Set
Contains 70 Pieces $3 / 8^{\prime \prime}$ to $1 \frac{11 / 4}{}$


The most complete set of $1 / 2^{\prime \prime}$ drive sockets and attachments for the mechanic who is able to do any job. Set packed in box, No. 2221. Size $21^{\prime \prime} \mathrm{x}$ $81 / 2^{\prime \prime} \times 93 / 4$ "。

| Number | Opening | Description | Number | Opening | Description |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1406 | 3/8" | D.H. Socket | 406 | $3 / 8 /$ | Single Hex Socket |
| 1407 | 7/16" |  | 407 | 7/16" | " " " |
| 1408 | 1/2" | " ${ }^{\prime \prime}$ | 408 | $1 /{ }^{\prime \prime}$ | " " " |
| 1409 | \%16" | " " | 409 | 9 \% | " |
| 1419 | $19 / 3{ }^{\prime \prime}$ | "" " | 410 | 5/8" | " "1 |
| 1410 | 5/8" | " | 411 | $11 / 1{ }^{\prime \prime}$ | " " $"$ |
| 1421 | ${ }^{21} 13_{2 \prime \prime}^{\prime \prime}$ | " 1 | 411 | 1/16" | " "1 |
| 1411 | 11/16" | " ${ }^{\prime}$ | 412 | 3/4" | " " " " |
| 1412 | 3/4" | " " | 413 | 13/16" | " |
| 1425 | $25 / 32$ " | " " | 414 | $7 / 8{ }^{\prime \prime}$ | " " " |
| 1413 | 13/76" | " " | 415 | 15/19 ${ }^{\prime \prime}$ | " " " |
| 1414 | 7\%" | " " | 432 | ]" | " |
| 1415 | 15/16" | " " | 433 | $11 / 16$ | " " " |
| 1431 | 31/32" | " " | 434 | 11/8" | " " " |
| 1432 | $1{ }^{\prime \prime}$ | ", ", | 436 | $11 / 4{ }^{\prime \prime}$ | " " " |
| 1433 | 1/16" | " ${ }^{\prime \prime}$ | LD16 | $1 / 2^{\prime \prime}$ |  |
| 1434 | $11 /{ }^{\prime \prime}$ | " " | LD18 | \% 21 | Deep D.H. Socket |
| 1435 | 13/16" | " | LD18 | /16. | ". " " |
| 1436 | 11/4" | " $\quad$ | LD20 | 11/16" | " |
|  |  |  | LD24 | $3 / 4$ " | " " " |
| D 406 S | 3/8" | Dble Sq. Socket | LD26 | $13 / 16$ | " " " |
| D 407 S | 7/16" | "، " ${ }^{\text {a }}$ | LD28 | $7 / 8$ " | " " " |
| D 408 S | $1 / 2$ " | " " " | LD30 | 15/16 | " /" " |
| D 409 S | $9 / 16{ }^{\prime \prime}$ | " " | LD32 | 1" | " " " |
| D 410 S | 5/8" | " ${ }^{\prime}$ | LD34 | 11/16" | " " ${ }^{\prime \prime}$ |
| D 411 S | $11 / 16$ | " "1 | LD36 | 11/8" | " " |
| D 412 S | $3 / 4$ " | " " " | DW12L | 3/8" | Allen Type Wrench |
| D 414 S | 7/8" | " " | DW16L | $1 / 2$ " | " " |
| D 432 S | 1" | " " | DW18L | \%/10 | " " " |
| 4206 | Adop |  | 405 | 15/16" | Drog Link Socket .150 |
| 709 | Unive | rsol Joint | 4002 | $13 / 16$ | . 150 |
| 7185 | 2" For | arged Extension | 653 L | 18" | Flex Hondle |
| 718 | 5" | " " | 686 | 19" | Speeder Rv. Grip |
| 719 | $10^{\prime \prime}$ | " " | 734 | $1 / 2 "$ | Dr. Screw Driver |
| 720 | 20" | " " | 5297 | 10" | Reversible Rotchet |
| 2591 | Stud | Remv. (5/16" to $5 / 8{ }^{\prime \prime}$ ) | 5297L | 15" | Reversible Rotchet |

## SW 44 Apprentice Combination Set

Contains 44 Pieces — $3 / 8^{\prime \prime}$ to $11 / 4^{\prime \prime}$

Here is a set for the mechanic starting out, containing an assortment of 44 pieces including $1 / 2$ " square drive sockets, handles and attachments, pliers, screwdrivers and other miscellaneous tools for which the greatest everyday need will be found. It is inexpensive, yet every piece is of the highest quality. The contents were carefully selected to enable the handling of the greatest variety of repair jobs with the minimum number of tools. The large roomy box measures $207 / 8^{\prime \prime} \times 7^{\prime \prime} \times 67 / 8^{\prime \prime}$ and has ample room for the addition of more tools from time to time. It is equipped with a carrying handle. Box No. 2219.
The SW 44 Set includes one each of the following

| No. | Description | No. | Description | Size | No. | Descrip | iption | Size | No. | Description |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 003 | $3^{\prime \prime}$ Screwdriver | 686 | 191/4" Speeder | 3/8" | 1406 | D.H. | Sock. | 7/8" | 1414 | D.H. Sock. |
| 04 | $4^{\prime \prime}$ " ${ }^{\prime \prime}$ | 709 | Universol Joint | $716{ }^{\prime \prime}$ | 1407 |  |  | 15/1" | 1415 |  |
| 08 | 8 " | 718 | $5^{\prime \prime}$ Extension | 1/2" | 1408 | " | " | 1" | 1432 | " |
| B 17 | Diogonol Plier | 719 | 10" $0^{\prime \prime}$ Extension | 9/6" | 1409 | " | " | 11/6" | 1433 | " |
| B 29 | Combinotion Plier | 5297 | 10" Reversible Rotchet | 19373 ${ }^{\prime \prime}$ | 1419 | " | " | 11/8" | 1434 | " " |
| C 3 | Chisel Flot 5/8", Cut | 3114 | 7/6", Tu-Type Wrench | 5/8" | 1410 | " | " | 11/4" | 1436 | " " |
| C 5 | Chisel Flot $7 / 8^{\prime \prime}$ Cut | 3116 | 1/2" " " | ${ }^{21 / 3} 3^{\prime \prime}$ | 1421 | " |  | 13/6", | LD26 | Deep Sock. |
| C 23 | Punch 1/8" Point | 3118 | Y6" " | 11/1" | 1411 | " | " | 7/8' | LD28 | " " |
| 212 G | B. P. Hommer 1 lb . | 3120 | 5/8", " | 3/4" | 1412 | " | " | 15/18 ${ }^{\prime \prime}$ | LD30 | " " |
| 522 | Bottery Plier | 3122 | 11/0" " " | 13/16 ${ }^{\prime \prime}$ | 1413 | " | " | 1 " | LD32 | " " |
| ¢ 653 | 15" Flex. Hondle | 3124 | 3/4" " " |  |  |  |  |  |  |  |
| LD 26R | 13/16" Plug Socket | 3128 | 7/8" |  |  |  |  |  |  |  |

This SW 20 set has thirteen straight wall double hexagon sockets and an assortment of the most desirable attachments. Packed in attractive metal box measuring $20^{\prime \prime} \times 6^{\prime \prime} \times 31_{2}^{\prime \prime}$. All pieces are of high quality alloy steel heavily chrome plated. It makes an ideal set for use either in the shop or on the job. Box No. 2201.

## SW 20 Set

Contains 20 Pieces - $3 / 8^{\prime \prime}$ to $1^{\prime \prime}$


Contents of SW 20

| Size | No. | Size | No. |
| :---: | :---: | :---: | :---: |
| $3 / 8$ " | 1406 | $3 / 4^{\prime \prime}$ | 1412 |
| $7 / 6$ | 1407 | 13/16" | 1413 |
| $1 / 2^{\prime \prime}$ | 1408 | $25 / 32^{\prime \prime}$ | 1425 |
| 96" | 1409 | 7/8" | 1414 |
| 5/8" | 1410 | $15 / 16^{\prime \prime}$ | 1415 |
| 21/32" | 1421 | 1" | 1432 |
| 116" | 1411 |  |  |


| No. | Description |
| :--- | :--- |
| 653 | $15^{\prime \prime}$ Flex. Hondle |
| LD $26 R$ | $13 / 1^{\prime \prime}$ Plug Socket |
| 686 | $1914^{\prime \prime}$ Speeder |
| 709 | Universol Joint |
| 718 | $5^{\prime \prime}$ Extension |
| 719 | $10^{\prime \prime}$ Extension |
| 5297 | $10^{\prime \prime}$ Reversible Rotchet |

# Standard Series 1/2" Drive Sets 

## SW 23 Set

Contains 23 Pieces — $3 / 8^{\prime \prime}$ to $114^{\prime \prime}$


This SW 23 set has straight wall sockets with the popular double hexagon openings. It contains sockets in sizes that find the most general use plus an excellent assortment of handles and attachments. Each piece is made from alloy steel, scientifically heat treated and heavily chrome plated. The box has a carrying handle and padock hasp. Size $20^{\prime \prime} \times 6^{\prime \prime} \times 3^{1 / 2 " .}$ Box No. 2201.

Contents of SW 23

| Size |  | No. | Size |  | No. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 3 / 8^{\prime \prime} \\ & 7 / 16^{\prime \prime} \\ & 1 / 2^{\prime \prime} \\ & 916^{\prime \prime} \\ & 5 / 8^{\prime \prime} \\ & 21 / 32^{\prime \prime} \\ & 1116^{\prime \prime} \\ & 3 / 4^{\prime \prime} \end{aligned}$ |  | $\begin{aligned} & 1406 \\ & 1407 \\ & 1408 \\ & 1409 \\ & 1410 \\ & 1421 \\ & 1411 \\ & 1412 \end{aligned}$ | $\begin{gathered} 25 / 32^{\prime \prime} \\ 13 / 6^{\prime \prime} \\ 7 / 8^{\prime \prime} \\ 15 / 18 "_{\prime \prime} \\ 1^{\prime \prime} \\ 11 / 16 "_{\prime \prime} \\ 11 / 8^{\prime \prime} \\ 11 / 4^{\prime \prime} \end{gathered}$ |  | $\begin{aligned} & 1425 \\ & 1413 \\ & 1414 \\ & 1415 \\ & 1432 \\ & 1433 \\ & 1434 \\ & 1436 \end{aligned}$ |
| No. |  | tion | No. |  | ptio |
| $\begin{gathered} 653 \\ \text { LD } 26 R \\ 686 \\ 709 \end{gathered}$ | $\begin{aligned} & 15^{\prime \prime} \\ & 13 / 16^{\prime \prime} \\ & 191 / 4^{\prime \prime} \\ & \text { Unive } \end{aligned}$ | Hondle Socket eder Joint | $\begin{aligned} & 718 \\ & 719 \\ & 5297 \end{aligned}$ |  | on ion ible R |

This 35 piece socket set is an ideal selection for the mechanic that does general repair work. It is a tool kit any man will be glad to own. It includes the popular regular design double hexagon straight wall sockets and nine single hexagon sockets, with a worth-while assortment of the popular attachments. All pieces are made of the finest alloy steel, heavily chrome plated and will retain their original finish indefinitely. The complete set is packed in a sturdy metal box with carrying handle and padlock hasp. Size $207 / 8^{\prime \prime} \times 7^{\prime \prime} \times 67 /{ }^{\prime \prime}$. Box No. 2219.

## SW 35 Set

Contains 35 Pieces - $3 / 8^{\prime \prime}$ to $11 / 4^{\prime \prime}$

The SW 35 Set includes one each of the following

| Size | No. | Description |  | Size | No. | Description |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 3/8" | 1406 | D.H. | Sock. | 11/16" | 1433 | D.H. | Sock. |
| 7/18 ${ }^{\prime \prime}$ | 1407 | " | " | 11/8" | 1434 |  |  |
| 1/2" | 1408 | " | " | 13/7" | 1435 | " | " |
| 9/16" | 1409 | " | " | 11/4" | 1436 | " | " |
| 5/8" | 1410 | " | " | 3/8" | 406 | S.H. | Sock. |
| 21/32" | 1421 | " | " | $7 / 16$ | 407 |  | " |
| 1/16" | 1411 | " | " | 1/2" | 408 | " | " |
| 3/4" | 1412 | " | " | 916 | 409 | " | " |
| 25/3" ${ }^{\prime \prime}$ | 1425 | " | " | 5/8" | 410 | " | " |
| 13/16" | 1413 | " | " | $11 / 10$ | 411 | " | " |
| 7/8" | 1414 | " | " | 3/4" | 412 | " | " |
| 15/16" | 1415 | " | " | 13/10" | 413 | " | " |
| 1" | 1432 | " | " | 7/8' | 414 | " | " |


| No. | Description | No. | Description |
| :---: | :---: | :---: | :---: |
| 405 | Drag Link Socket | $718 S$ | $2^{\prime \prime}$ Extension |
| 686 | $191_{4 \prime \prime}^{\prime \prime}$ Speeder | 718 | $5^{\prime \prime}$ Extension |
| LD 26R | $13 / 1 s^{\prime \prime}$ Plug Socket | 719 | $10^{\prime \prime}$ Extension |
| 709 | Universal Joint | 653 | $15^{\prime \prime}$ Flex. Hondle |

# Standard Series $1 / 2^{\prime \prime}$ Drive Sets 

This SW 15 is an inexpensive set for the beginner or the man who wishes to do his own repairs. The set contains the same high quality straight wall sockets, handles and deluxe ratchet as the larger sets. It is packed in an attractive metal box. Size $20^{\prime \prime} \mathrm{x}$ $6^{\prime \prime} \times 3^{1 / 2 / 2}$. Box No. 2201.

SW 15 Set
Contains 15 Pieces- $3 / 8^{\prime \prime}$ to $7 / 8^{\prime \prime}$

The SW 15 Set includes one each of the following

| Open. | No. | Description | Open. | No. | Description |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $3 / 8{ }^{\prime \prime}$ | 1406 | D.H. Socket | 21/32" | 1421 | D.H. Socket |
| $7 / 1{ }^{\prime \prime}$ | 1407 | " ${ }^{\text {, }}$ | 11/16" | 1411 |  |
| $1 / 2^{\prime \prime}$ | 1408 | " ${ }^{\prime \prime}$ | $3 / 4$ " | 1412 | " |
| 9/16 ${ }^{\prime \prime}$ | 1409 | " ${ }^{\prime \prime}$ | 13/16" | 1413 | " ${ }^{\prime \prime}$ |
| 5/8" | 1410 | " | $7 / 8$ | 1414 | " " |
| Plus one each of the following Handles and attachments |  |  |  |  |  |
| No. | Description |  | No. | Description |  |
| 686 | 19" Speeder <br> 15" Flex Handle Reversible Ratchet |  | 718 | $\begin{aligned} & 5^{\prime \prime} \text { Extension } \\ & 10^{\prime \prime} " \end{aligned}$ |  |
| $\begin{aligned} & 653 \\ & 5297 \end{aligned}$ |  |  | 719 |  |  |



It is an ideal set for the service station or service man doing light repairs. All pieces are made of the finest quality alloy steel are chrome plated. Size $17^{\prime \prime} \times 5 \frac{1}{2}$ " $\times 13 /{ }^{\prime}$ ". Box No. 2284.

| Open. | No. | Description | Open. | No. | Description |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $3 / 8$ | 1406 | D.H. Socket | 11/6" | 1411 | D.H. Socket |
| 7/10" | 1407 | " | 3/4" | 1412 | " |
| $1 /{ }^{\prime \prime}$ | 1408 | " " | 13/6" | 1413 | " " |
| 9/6" | 1409 | " " | 7/8" | 1414 | " " |
| 5/8" | 1410 | "" | 5 " | 718 | Extension |
| $10^{\prime \prime}$ | 5297 | Reversible Ratchet | 15" | 653 | Flex Handle |

## SW 12 Set

Contains 12 Pieces - $3 / 8^{\prime \prime}$ to $7 / 8^{\prime \prime}$


- The Mechanics Tool Centre $1 / 4^{\prime \prime}$ \& $3 / 8^{\prime \prime}$ Drive Sockets \& Attachments
- A neat and compact $2^{\prime} \times 2^{\prime}$
- Each tool is outlined and marked
- Durable mar-proof white epoxy painted



## Master Set



| 3/8' Drive |  |  |
| :---: | :---: | :---: |
| No. | Description |  |
| TH8S | 1/4" | S.H. Socket |
| TH10 | 5/16" | " " |
| TH12 | 3/8' | " " |
| TH14 | 7/16" | " " |
| TH16 | $1 / 2$ | " |
| TH18 | 9/16 | " " |
| TH20 | 5/8" | " " |
| TH22 | $11 / 16$ | " " |
| TH24 | $3 / 4{ }^{\prime \prime}$ | " " |
| TH26 | 13/16" | " |
| TH28 | 7/8" | " " |
| T4 | $6^{\prime \prime}$ | Extension |
| T5 | 12" | Extension |
| T30 | 9" | Flexible Handle |
| T57 | 71/2' | Rev. Rotchet |
| $1 / 2{ }^{\prime \prime}$ Drive |  |  |
| No. | Description |  |
| 406 | 3/8" | S.H. Socket |
| 407 | $7 / 1{ }^{\prime \prime}$ | ". " |
| 408 | 1/2" | " ${ }^{\prime}$ |
| 409 | $9 / 16$ | " " |
| 410 | 5/8" | " " |
| 411 | 11/16" | " $/ 1$ |
| 412 | $3 / 4{ }^{\prime \prime}$ | " " |
| 413 | 13/16" | " " |
| 414 | $7 / 8$ | " " |
| 415 | 15/16" | " " |
| 432 | 1" | " ${ }^{\prime}$ |
| 6531 | 18" | Flex. Handle |
| 709 | 1/2" | " $U^{\prime \prime}$ Jaint |
| 718 | 5" | Extensian |
| 719 | 10" | Extension |
| 5297 | 10" | Rev. Rotchet |

Feeler Gauges
FG 2 Master Gauge FG 7A Spark Plug Gouge

Combination Wrenches

| No. | Description | Length |
| :---: | :---: | :---: |
| 3108 | 1/4" | $3^{31 / 2^{\prime \prime}}$ |
| 3112 | 3/8' | $5{ }^{\prime \prime}$ |
| 3114 | 7/16 | 53/8" |
| 3116 | 1/2" | 6 " |
| 3118 | 9/10" | $63 / 41$ |
| 3120 | 5/8" | 73/4" |
| 3122 | 11/16" | 85/8" |
| 3124 | $3 / 4{ }^{\prime \prime}$ | $91 / 2^{\prime \prime}$ |
| 3128 | 7/8' | $11^{\prime \prime}$ |
| 3132 | 1 " | $131 / 2^{\prime \prime}$ |

Open End Wrenches

| E 1214 | $3 / 8{ }^{\prime \prime} \times 7 / 16^{\prime \prime}$ |
| :---: | :---: |
| E 1618 | $1 / 2^{\prime \prime} \times 916$ |
| E 2024 | $5 / 811 \times 3 / 4$ |
| E 2628 | $1316^{\prime \prime} \times 7 / 8$ |
| E 3032 | 15/1" $\times 1$ 1" |


| B18 | 7" Diag. Cutting Plier |
| :---: | :---: |
| B29 | 7" Combinotion Plier |
| B654 | $7{ }^{\prime \prime}$ Long Nase Plier |
| 522 | 8" Bottery Plier |
| 10R | 10" Vise Grip Plier |
| Screw Drivers |  |
| 006 | 6" Electricians |
| 04 | 4" Raund Shank |
| 06 | 6" " " |
| 08 | 8" " |
| CPI | No. 1 Paint |
| CP2 | No. 2 " |
| CP3 | No. 3 " |
| CP4 | No. 4 " |


| Adapter |  |  |
| :--- | :---: | :---: |
| 4206 | $1 / 2^{\prime \prime}$ |  |
| $3 / 8^{\prime \prime}$ |  |  |

## BS 98 Set

Beginners' Auto Mechanic Set

## For Tech. School Students

Contains 98 Pieces
Packed in Box No. 2250

| Metric |  |  | Wrenches |
| :--- | ---: | :---: | :---: |
| No. | Size |  |  |
| ME 810 | $8 \mathrm{~mm} \times 10 \mathrm{~mm}$ |  |  |
| ME 911 | $9 \mathrm{~mm} \times 11 \mathrm{~mm}$ |  |  |
| ME 1213 | $12 \mathrm{~mm} \times 13 \mathrm{~mm}$ |  |  |
| ME 1416 | $14 \mathrm{~mm} \times 16 \mathrm{~mm}$ |  |  |
| ME 1517 | $15 \mathrm{~mm} \times 17 \mathrm{~mm}$ |  |  |
| ME 1819 | $18 \mathrm{~mm} \times 19 \mathrm{~mm}$ |  |  |
| Hacksaw |  |  |  |
| No. 2682 | Tubular Adjustable |  |  |

Ignition Set
No. 22LR 11 pce Tune-Up Kit
Spark Plug Socket
No. LT26R 13//6" Deep socket with rubber insert

Allen Wrenches
W9LR Set - WI-W9
Carbon Scraper
No. 838


## Master Set



| Part Na. | Descriptian | $\begin{aligned} & \text { See } \\ & \text { Page } \end{aligned}$ |
| :---: | :---: | :---: |
| VS180 | 1/4" Drive Set | 5 |
| TG34 | 3/8" Drive Set * | 9 |
| TUJ 12 | Universal Joint Set | 8 |
| SW47 | $1 / 2 "$ Drive Set * | 16 |
| HD25 | $33^{\prime \prime}$ " Drive Set * | 24 |
| OE12LR | Open End Wrench Set * | 38 |
| TU14S | Cambinatian Wrench Set | 36 |
| DO12 | Bax Wrench Set * | 41 |
| 270LR | Short Bax Wrench Set | 40 |
| 22LR | Ignitian Set | 39 |
| 5000LR | Ratcheting Bax Wrench Set | 40 |
| SDI3LR | Regular Screwdriver Set * | 47 |
| SD6IR | Phillips Screwdriver Set * | 47 |
| S35P | Screw Extractar Set | 64 |
| WIILR | Allen Wrench Set | 65 |
| F7TR | Thread Restarer Set | 84 |
| C47LR | Punch and Chisel Set * | 56 |
| RF163 | Dauble Flaring Taal | 69 |
| 2250 | Master Chest | 86 |
| 2260 | Roller Cabinet | 86 |
| 2262 | Drawer Insert | 87 |

(*) Sets marked with an asterisk da nat include the taal box ar leatherette roll.

## MS 288 Set Contains 288 Pieces

Completely mobile, this set can be rolled to any point in your shop. The 288 high quality tools will accomplish almost any job that a mechanic will ever face.

Carefully checked to include only those tools which the mechanic uses most often, this set is a must with the mechanic who prides himself on doing the best job that is possible. Packed in Box No. 2250 and No. 2260 roller cabinet and No. 2262 lower drawer set.

| Part Na. | Descriptian | See Page |
| :---: | :---: | :---: |
| 10R | 10" Vise Grip Plier | 42 |
| 10WR | 10" Side Cutting Vise-Grip | 42 |
| 88 | 8" Cambination Plier | 45 |
| 817 | 6" Diaganal Cutting Plier | 43 |
| B21 | 8" Lack Ring Plier | 42 |
| 825 | 6" Side Cutting Plier | 43 |
| 845-10 | 10" Rib-Jaint Plier | 44 |
| 522 | 7" Angle Nose Battery Plier | 45 |
| 525 | 13" Brake Spring Plier | 45 |
| 886 | Hose Clamp Plier | 44 |
| BW 10 | 8" Adjustable Wrench | 64 |
| BW12 | 12" Adjustable Wrench | 64 |
| NSP14 | 14" Pipe Wrench | 64 |
| FG2 | Master Feeler Gouge | 66 |
| FG7 | Spark Plug Wire Gauge | 66 |
| FG14A | Ga-Na-Go Gauge | 66 |
| 212K | 4 az . Ball Pein Hommer | 78 |
| 212G | 16 az. Ball Pein Hammer | 78 |
| PHI5 | 8 oz . Saft Face Hammer | 78 |
| CH06 | $3 / 16{ }^{\prime \prime}$ Spinner Wrench | 48 |
| CH08 | $1 / 4 "$ " " | 48 |
| CH 10 | 5/16" " | 48 |
| CH 11 | $11 / 32$ " " | 48 |
| CH 12 | 3/8" " | 48 |
| R150 | Tarque Wrench | 52 |
| K2 | Magnetic Pickup Taol | 51 |
| 127 | Screw Starter | 51 |
| 2564 | Brake Adjusting Taol | 83 |
| C39 | Pry Bar | 55 |
| X010 | Oil Filter Wrench | 70 |
| 840 | Wire Brush | 73 |
| 838 | Flexible Carban Scraper | 73 |
| 2682 | Hacksaw | 64 |
| 199SK | Shap Knife | 70 |
| 107D | Cambination Snips | 82 |



The 4255 Handle Fits the 4254 Ratchet and No. 86 Head

Extra Deep 3/4 Dr. Sockets


$$
\text { Single Hexagon } 31 / 2^{\prime \prime} \text { Long }
$$

| ו" | RLH 32 | S.H. | Deep | Socket |
| :---: | :---: | :---: | :---: | :---: |
| 116" | RLH 34 | " | " | " |
| 11/8" | RLH 36 | " | " | " |
| 11/4" | RLH 40 | " | " | " |
| 136" | RLH 42 | " | " | " |
| 13/8" | RLH 44 | " | " |  |
| 1\%\%" | RLH 46 | " | " | " |
| $11 / 2$ " | RLH 48 | " | " |  |



| No. | Openings |
| :---: | :---: |
|  |  |
| $4213$ | $\left[\begin{array}{llll} 3 / 4^{\prime \prime} & \text { Sq. } & 1^{\prime \prime \prime} & \text { Sq } \\ 1 " & \text { Sq. } & \& & 3 / 4 \\ \hline \end{array}\right.$ |
| 4298 | $1 / 2^{\prime \prime}$ Sq. \& $3 / 4^{\prime \prime}$ Sq. |
| -4299 | $3 / 4^{\prime \prime}$ Sq. \& $1 / 2^{\prime \prime} \mathrm{Sq}$. |
| No. |  |
|  |  |
| 4202 | $2^{\prime \prime} \mathrm{S}$ |

# 3/4" Square Drive Sockets <br> HEAVY DUTY SERIES 

HD Sockets
Double Hexagon

| Opening | Number | Socket End Diameter | Length |
| :---: | :---: | :---: | :---: |
| $3 / 4$ | HD 24 | 11\%6" | $11518{ }^{\prime \prime}$ |
| 13/6" | HD 26 | $115 / 4$ |  |
| 7/8' | HD 28 | 11\%4" | $1566^{\prime \prime}$ |
| 1518" | HD 30 | 13/8" | 1968 |
| $1 "$ | HD 32 | 12\%/4' | 19610 |
| 1\%" | HD 34 | $135 / 4^{\prime \prime}$ | $2{ }^{\prime \prime}$ |
| 11/8" | HD 36 | 15/8" | $21_{6}{ }^{\prime \prime}$ |
| $13 \%{ }^{\prime \prime}$ | HD 38 | 1116" | 21/8" |
| 11/4" | HD 40 | $125 / 3{ }^{\prime \prime}$ | 21/8" |
| 15\%" | HD 42 | $17 /{ }^{\prime \prime}$ | 2316 |
| 13/" | HD 44 | 122/32 | $23 / 1{ }^{\prime \prime}$ |
| $1 \%$ \% | HD 46 | $2^{\prime \prime}$ | $21 /{ }^{\prime \prime}$ |
| $11 / 2$ $1 \%{ }^{\prime \prime}$ | HD 48 HD 50 | 23/311 | 256\% |
| 1\%" | HD 50 HD 52 | 23\%" ${ }^{31 / 4}$ | 23/" |
| 1\%" | HD 54 | $21 / 32^{\prime \prime}$ | $2 \%$ \%' |
| 13/4" | HD 56 | 2710" | 2\%6" |
| 1136 | HD 58 | $27 / 6$ | 25/" |
| 17/3" | HD 60 | 25/8" | $23 / 4 \prime$ |
| 2 ${ }^{2 \prime \prime}$ | HD 64 HD 66 | $25 / 8 "$ $227 / 3$ | 3" ${ }^{\prime \prime \prime}$ |
| 21/" | HD 68 | 22/32 ${ }^{22 / 32^{\prime \prime}}$ |  |
| $23 / 6$ | HD 70 | $231 / 3{ }^{\prime \prime}$ | $31 / 8 /$ |
| 21/4" | HD 72 | $231 / 3{ }^{\prime \prime}$ | $37 / 2^{\prime \prime}$ |
| 23/8" | HD 76 | $37 / 2^{\prime \prime}$ | $31 / 4.1$ |

HD 12 Set - $3 / 4^{\prime \prime}$ Drive
Contains 12 Pieces - $1^{\prime \prime}$ to $158^{\prime \prime}$


This set is especially valuable for the user who requires heavy duty tools at a minimum investment. It can be built up into the big HD 25 set as the same box is used for both sets. Box No. 2210.
Contains one each of the following:

| Open. | No. | Description | Open. | No. | Description |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $1 "$ | HD 32 | D.H. Socket | 13/8' | HD 44 | D.H. Socket |
| 11/6" | HD 34 | " " | $17 \%$ | HD 46 | " " |
| 11/8" | HD 36 | " " | $11 / 2^{\prime \prime}$ | HD 48 | " " |
| 11/4" | HD 40 | " " | 15/8" | HD 52 | " " |

and following attachments

| No. | Description | No. | Description |
| :---: | :--- | :---: | :--- |
| 86 | Head (use <br> 4255 Handle) <br> $151 / 2^{\prime \prime}$ Extension | 88 | 8 (Extension |
| 87 | 4255 | Handle |  |

## $3 / 4^{\prime \prime}$ Square Drive Socket Sets <br> HEAVY DUTY SERIES

This is an extremely fine heavy duty socket wrench set. It contains a complete range of the heavy duty alloy steel forged sockets with double hexagon openings in sizes from $7 / 8^{\prime \prime}$ to $23 / 16^{\prime \prime}$, a heavy duty reversible ratchet and the other heavy duty attachments as listed below. This is a deluxe set built for hard usage. All pieces are chrome plated and contained in a strong metal box. (Box $2210211 / 2^{\prime \prime} \times 89 / s^{\prime \prime} \times$ $31 / 4{ }^{\prime \prime}$ ). Set includes one each of:

| Open. | No. | Description | Open. | No. | Description |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 7/8" | HD 28 | D.H. Sock. | 11/2" | HD 48 | D.H. Sock. |
| 15/16" | HD 30 | " " | 1\%" | HD 50 | "، ${ }^{\text {d }}$ |
| $1 "$ | HD 32 | " " | 15/8" | HD 52 | " " |
| 11/16" | HD 34 | " " | 111/6" | HD 54 | " " |
| $11 / 8$ | HD 36 | " " | 13/4" | HD 56 | " " |
| 13/18" | HD 38 | " " | $113 / 16^{\prime \prime}$ | HD 58 | " " |
| 11/4" | HD 40 | " " | 178" | HD 60 | " |
| 15/10" | HD 42 | " " | 2" | HD 64 | " " |
| 13/8" | HD 44 | " " | 23/16" | HD 70 | " " |
| 1716" | HD 46 | " " |  |  |  |

plus the following attachments

| No. | Description | No. | Description |
| :---: | :---: | :---: | :---: |
| 4254-55 | 24" Rev. Rotchet (2 pieces) | $\begin{aligned} & 88 \\ & 87 \end{aligned}$ | 8" Extension <br> 151/2" Extension |
| 4288 | 21"Flex. Hondle | 86 | Head |
| 885 | $4^{\prime \prime}$ Extension |  |  |

This heavy duty set contains a broad range of the heavy duty alloy steel sockets, including sizes from $7 / 8^{\prime \prime}$ to $2^{\prime \prime}$. It was designed to handle the heavy work on buses, trucks, tractors and all types of heavy industrial machinery. It is packed in a strong metal box. Box $2210211 / 2 " \times 83 / 8$ " x $31 / 4$ ".

| Open. | No. | Description | Open. | No. | Description |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $7 / 8$ | HD 28 | D.H. Sock. | 13/8" | HD 44 | D.H. Sock. |
| 15/8" | HD 30 | " " | $17 / 16^{\prime \prime}$ | HD 46 | " |
| 1" | HD 32 | " " | $11 / 2^{\prime \prime}$ | HD 48 | " |
| 11/16" | HD 34 | " / | $15 / 8{ }^{\prime \prime}$ | HD 52 | " |
| '11/8' | HD 36 | " " | $13 / 4^{\prime \prime}$ | HD 56 | " " |
| 13/6" | HD 38 | " ${ }^{\prime \prime}$ | $113 / 16^{\prime \prime}$ | HD 58 | " " |
| 11/4" | HD 40 | " " | 17/8" | HD 60 | " " |
| 15/10" | HD 42 | " " | 2" | HD 64 | " " |

and following attachments:

| No. | Description | No. | Description |
| :--- | :--- | :---: | :--- |
| $4254-55$ | $24^{\prime \prime}$ Rev. Rotchet | 88 | $8^{\prime \prime}$ Extension |
|  | (2 pieces) | 87 | $151 / 2^{\prime \prime}$ Extension |
| 885 | $4^{\prime \prime}$ Extension | 86 | Head |

## HD 25 Set

Contains 25 Pieces $7 / 8^{\prime \prime}$ to $23 / 6^{11}$


HD 21 Set
Contains 21 Pieces — $7 / 8^{\prime \prime}$ to $2^{\prime \prime}$


## 3/4" Square Drive Socket Sets HEAVY DUTY SERIES

## HD 31 Set

Contains 31 Pieces - $3 / 4^{\prime \prime}$ to $23 / 8^{\prime \prime}$


The HD 31 Set contains a complete range of heavy duty sockets and attachments. All of the necessary parts are here to service any heavy industry or construction job. Set packed in Heavy Duty box No. 2204. Size $26^{\prime \prime} \times 8^{\prime \prime} \times 8^{\prime \prime}$.

| Opening | Number | Description | Opening | Number | Description |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $3 / 4$ " | HD 24 | D. H. Socket | $19 / 6{ }^{\prime \prime}$ | HD 50 | D. H. Socket |
| 7/8' | HD 28 | " " | $15 / 8{ }^{\prime \prime}$ | HD 52 | " " |
| 15/6" | HD 30 | " " | 111/6" | HD 54 | " " |
| $1 "$ | HD 32 | " " | $13 / 4{ }^{\prime \prime}$ | HD 56 | " " |
| 1116 | HD 34 | " " | $133 / 16^{\prime \prime}$ | HD 58 | " " |
| $11 / 8{ }^{\prime \prime}$ | HD 36 | " " | $17 / 8{ }^{\prime \prime}$ | HD 60 | " " |
| $13 / 16$ | HD 38 | " " | 2" | HD 64 | " " |
| $11 / 4 "$ | HD 40 | " " | $21 / 1{ }^{\prime \prime}$ | HD 66 | " " |
| 1 \%/6" | HD 42 | " " | $21 / 8{ }^{\prime \prime}$ | HD 68 | " " |
| $13 / 8{ }^{\prime \prime}$ | HD 44 | " " | $23 / 1{ }^{\prime \prime}$ | HD 70 | " " |
| $17 / 10$ | HD 46 |  | $21 / 4{ }^{\prime \prime}$ | HD 72 |  |
| $11 / 2{ }^{\prime \prime}$ | HD 48 | " " | $23 / 8{ }^{\prime \prime}$ | HD 76 | " " |
| and following attachments: |  |  |  |  |  |
| No. |  | Description |  |  |  |
| 86 |  | Drive Heod. Use with 4255 Hondle |  |  |  |
| 88 S |  | $4^{\prime \prime}$ Forged Extension |  |  |  |
| 88 |  | 8" Forged Extension |  |  |  |
| 87 |  | 151/2" Forged Extension |  |  |  |
| 4254-55 |  | $24^{\prime \prime}$ Long Rev. Rotchet Complete (2 pieces) |  |  |  |
| 4288 |  | 22" Flexible Hondle |  |  |  |
| 4295 |  | Universol Joint |  |  |  |

The HD 15 Set consists of fifteen well selected pieces chosen to provide a wide range in heavy duty types and sizes with a minimum investment. Supplied in strong metal box, No. 2210, Size $211 / 2^{\prime \prime} \times 83 / /^{\prime \prime} \times 31 / \mathbf{y}^{\prime \prime}$.

Content includes

| Open. | No. | Description | Open. | No. | Description |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $7 / 1$ <br> $1^{\prime \prime}$ <br>  <br> 1 | $\text { HD } 28$ $\text { HD } 32$ | D.H. Sock. | $\begin{aligned} & 13 / 8^{\prime \prime \prime} \\ & 12{ }^{\prime} \end{aligned}$ | HD 44 | D.H. Sock. |
| 11\%" | HD 34 | " " | 11/2" | HD 48 | " " |
| 11/8" | HD 36 | " " | 15/8' | HD 52 | " " |
| 11/4" | HD 40 | " " | $13 / 4$ " | HD 56 | " " |
| and following attachments |  |  |  |  |  |
| No. | Description |  | No. | Description |  |
| 86 87 | Drive Heod (use 4255 Hondle) <br> 151/2" Extension |  | $\begin{gathered} 88 \\ 4254-55 \end{gathered}$ | 8" Extension Rotchet ( 2 pieces) |  |

# 1" Square Drive Attachments 

 EXTRA HEAVY DUTY SERIESX 101
$\square 9$

X 106


| No. | Description | No. | Description |
| :---: | :---: | :---: | :---: |
| $\begin{array}{rr} \mathrm{X} & 8 \\ \mathrm{X} & 9 \\ \mathrm{X} & 31 \\ \mathrm{X} & 32 \end{array}$ | 8" Extension <br> 17" Extensian <br> $\left.\begin{array}{l}211 / 2^{\prime \prime} \text { Sliding Bar } \\ \text { Drive Head, Male }\end{array}\right]$ ane piece | $\begin{array}{r} \times 101 \\ \times 106 \\ 4211 \\ 4213 \end{array}$ | 23 $1 / 2^{\prime \prime}$ Reversible Ratche ${ }^{\prime}$ <br> $25^{\prime \prime}$ Flexible Handle <br> $3 / 4^{\prime \prime}$ Square Female, 1" Male Adaptar <br> 1" " " $3 / 4$ " " " |

1 INCH SQUARE DRIVE 12 POINT REGULAR LENGTH


| No. | Opening | Bolt <br> Clearance Depth | Overall Length |
| :---: | :---: | :---: | :---: |
| X 46 | 176" | $15 / 16$ | $21 / 2 \prime$ |
| X 48 | $11 / 2{ }^{\prime \prime}$ | $11 / 6$ | $2 \%{ }^{\prime \prime}$ |
| X 52 | $15 / 8^{\prime \prime}$ | $17 /{ }^{\prime \prime}$ | 21/6" |
| X 54 | 11/6" | $15 / 8$ " | $23 / 4{ }^{\prime \prime}$ |
| X 58 | 13/6" | 11/6" | $27 /{ }^{\prime \prime}$ |
| X 60 | $17 /{ }^{\prime \prime}$ | 151/6" | 21/16" |
| X 64 | 2" | 2 " | $3^{\prime \prime}$ |
| X 68 | $21 / 8 "$ | $21 / 1{ }^{10}$ | $31 / 1{ }^{\prime \prime}$ |
| $\times 70$ | $23 / 6$ | $21 / 8{ }^{\prime \prime}$ | $31 / 8{ }^{\prime \prime}$ |
| X 72 | $21 / 4 \prime$ | $21 / 8 \prime$ | $33 / 1{ }^{\prime \prime}$ |
| $\times 74$ | 2 5/0" | $2 \%_{6}{ }^{\prime \prime}$ | $31 /{ }^{\prime \prime}$ |
| $\times 76$ | $23 / 8$ " | $21 / 4{ }^{\prime \prime}$ | $35 / 6{ }^{\prime \prime}$ |
| X 78 | $27 / 1{ }^{\prime \prime}$ | $25 / 6{ }^{\prime \prime}$ | $33 / 8{ }^{\prime \prime}$ |
| X 80 | $21 / 2$ " | $23 / 8$ " | $37 / 6$ |
| $\times 82$ | 2 \%6" | $27 \%$ | $31 / 2^{\prime \prime}$ |
| X 84 | $25 / 8$ " | $21 / 2^{\prime \prime}$ | $3 \%_{6}{ }^{\prime \prime}$ |
| $\times 88$ | $23 / 4 \prime \prime$ | 2 \%\%" | $3 \%{ }^{\prime \prime}$ |
| X 94 | 21/16" | $21 \% \%$ | 311/6" |
| X 96 | 3 " | $23 / 4 \prime \prime$ | $313 / 1{ }^{\prime \prime}$ |
| $\times 100$ | $31 / 8{ }^{\prime \prime}$ | $23 / 4 "$ | $37 /{ }^{\prime \prime}$ |

# 1" Square Drive Sets extra heavy duty series 

## No. XH 25 Extra Heavy-Duty Socket Set

 Contains 25 Pieces - 17/1" to $3^{\prime \prime}$Gray Tool Set No. XH 25 contains an assortment of seventeen $1^{\prime \prime}$ square drive double hexagon sockets, from $11 / 1_{10}^{\prime \prime}$ to $3^{\prime \prime}$, and eight attachments.

Designed for extra heavy work on buses, trucks, tractors, marine engines, heavy equipment and industrial machinery.

Packed in heavy duty metal box with piano type hinge, carrying handles end catches and padlock hasp. Size $261^{1} \mathbf{2}^{\prime \prime} \mathrm{x}$ x 8 x 8. No. 2204.

| No. | Description | No. | Description |
| :---: | :---: | :---: | :---: |
| X 46 | 17/6" D.H. Sacket | $\times 74$ | 25/6" D.H. Sacket |
| X 48 | 11/2" " " | $\times 76$ | 23/8" " " |
| X 52 | 15/8" " | X 78 | 2716" ${ }^{\prime \prime}$ |
| X 54 | 1116"" | X 80 | 21/2"" |
| X 58 | 113/6" " | X 82 | 2916" " |
| $\times 60$ $\times 60$ | 17/8" ${ }^{\prime \prime}$ | X 84 | 25/8" " |
| $\times 64$ | 2" " | X 88 | 23/4" ${ }^{\prime \prime}$ |
| $\times 170$ $\times \quad 72$ | ${ }^{2316}{ }^{3} /{ }^{\prime \prime}$ | $\times 96$ | $3^{\prime \prime}$ " " |
| $\times 72$ | 21/4" " |  |  |
| and the following attachments |  |  |  |
| No. | Description | No. | Description |
| $\begin{array}{ll}\mathrm{X} & 8 \\ \mathrm{X} & 8\end{array}$ | 8" Extension 17" <br> 211/2" Sliding Bar Drive Head, Male 23 $1 / 2^{\prime \prime}$ Reversible Ratchet | $\times 106$ $\begin{aligned} & x 106 \\ & 4211 \end{aligned}$ | 25" Flex Handle $3 / 4^{\prime \prime}$ square female ]" sq. male adaptar l" square female $3 / 4$ " square male adaptar |
| $\begin{array}{ll}x & 31 \\ \times & 32\end{array}$ |  |  |  |
| $\times 31$ $\times 101$ |  | 4213 |  |
| X 101 |  |  |  |



## No. XH 16 Extra Heavy-Duty Socket Set

 Contains 16 Pieces - $17 / 6_{6}^{\prime \prime}$ to $21 / 2^{\prime \prime}$Gray Tool Set XH 16 contains an assortment of eleven $1^{\prime \prime}$ square drive double hexagon sockets from $17 / 6^{\prime \prime}$ to $21 / 2^{\prime \prime}$ and five attachments.

Designed for extra heavy-duty work on buses, trucks, tractors, marine engines and equipment and industrial machinery.

Packed in heavy duty metal box with piano type hinge, carrying handles end catches and padlock hasp. Size $261 / 2^{\prime \prime} \mathrm{x}$ $\mathrm{x} 8 \times 8$. No. 2204.

| No. | Description | No. | Description |
| :---: | :---: | :---: | :---: |
| X 46 | 17/1" D.H. Sacket | $\times 64$ | 2" D.H. Sacket |
| X 48 | 11/2" " " | X 70 | 23/1" " " |
| $\times 52$ $\times \quad 54$ | 15\%" " | X 72 | 21/4" " " |
| $\times 54$ $\times 58$ | 110"," | X 76 | 23/8" |
| $\times 58$ $\times 58$ | 113/6" " | X 80 | 21/2" " |
|  | 178" " |  |  |
| and the following attachments |  |  |  |
| No. | Description | No. | Description |
| $\times 18$ $\times \quad 9$ | 8"Extensian <br> 17" " | ¢ 32 $\times 101$ | Drive Head, Male |
|  | 211/2" Sliding Bar |  | Reversible Ratchet |



# Metric $1 / 4^{\prime \prime}$ Drive Attachments and Sets 



SINGLE HEXAGON


| Opening |  | No. | Opening |  | No. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 4 mm | $M 604$ | 9 mm | $M 609$ |  |  |
| 5 mm | $M 605$ | 10 mm | $M 610$ |  |  |
| 6 mm | $M 606$ | 11 mm | $M 611$ |  |  |
| 7 mm | $M 607$ | 12 mm | $M 612$ |  |  |
| 8 mm | $M 608$ |  |  |  |  |

## SET No. M9141



Metric $1 / 4^{\prime \prime}$ Drive Sockets consists of 9 single hex sockets - Numbers M 604 to M 612. packed in steel tray, No. 1923.

No. M9140 Set
Contains 10 Pieces -4 mm to 12 mm


The ideal basic set for ignition and electrical work. Includes nine sockets and a versatile drive handle. All within a handy metal case No. 2281. $7^{\prime \prime} \times 3^{1 / 2 "} \times 1^{1 / 4 "}$.

| No. | Description |  |  | No. | Description |
| :---: | :---: | :---: | :---: | :---: | :---: |
| M 604 | 4 mm | S.H. | Socket | M 610 | 10 mm " |
| M 605 | 5 mm |  | " | M 611 | $11 \mathrm{~mm} \mathrm{S.H.Socket}$ |
| M 606 | 6 mm | " | " | M 612 | 12 mm " " |
| M 607 | 7 mm |  | " | v 780 | 6" Drive Handle |
| M 608 | 8 mm | " |  |  |  |
| M 609 | 9 mm | " | " |  |  |

No. M9142 Set
Contains 12 pieces - 4 mm to 12 mm


A complete set made from special heat treated alloy steel. Mirror chrome finished for long life. A must for any mechanic. Packed in sturdy metal box No. 2281 $7^{\prime \prime} \times 3^{1 / 4 "} \times 11 /{ }^{\prime \prime}$.

| No. |  | scription | No. | Description |
| :---: | :---: | :---: | :---: | :---: |
| M 604 | 4 mm | S.H. Socket | M 611 | 11 mm S.H. Socket |
| M 605 | 5 mm | " ${ }^{\prime \prime}$ | M 612 | 12mm " " |
| M 606 | 6 mm | "/ 1 | V 25 | Rev. Ratchet 5" |
| M 607 | 7 mm | " | V 26 | Flex Handle 51/2" |
| M 608 | 8 mm | " " | V 603 | $4^{\prime \prime}$ Extension |
| M 609 | 9 mm | " 1 |  |  |
| M 610 | 10 mm | " 1 |  |  |

# Metric 3/4" Drive Sockets and Sets 



# Metric $3 / 8^{\prime \prime}$ Drive Sockets 

Single Hexagon


| Opening | No. |
| :---: | :---: |
| 6 mm | MT 6H |
| 7 mm | MT 7H |
| 8 mm | MT 8H |
| 9 mm | MT 9H |
| 10 mm | MT 10H |
| 11 mm | MT 11H |
| 12 mm | MT 12H |
| 13 mm | MT 13H |
| 14 mm | MT 14H |
| 15 mm | MT 15H |
| 16 mm | MT 16H |
| 17 mm | MT 17H |
| 18 mm | MT 18H |
| 19 mm | MT 19H |
| 20 mm | MT 20i- |
| 21 mm | MT 21H |
| 22 mm | MT 22H |

Double Hexagon

M9381 Set


| Opening | No. |
| :---: | :--- |
| 6 mm | MT 6 |
| 7 mm | MT 7 |
| 8 mm | MT 8 |
| 9 mm | MT 9 |
| 10 mm | MT 10 |
| 11 mm | MT 11 |
| 12 mm | MT 12 |
| 13 mm | MT 13 |
| 14 mm | MT 14 |
| 15 mm | MT 15 |
| 16 mm | MT 16 |
| 17 mm | MT 17 |
| 18 mm | MT 18 |
| 19 mm | MT 19 |
| 20 mm | MT 20 |
| 21 mm | MT 21 |
| 22 mm | MT 22 |

9 mm to 19 mm

Contains eleven single hexagon regular length sockets. Numbers MT 9H-MT 19 H packed in steel tray. Number 1922.

9 mm to 19 mm
MT111 Set

Deep Double
Hexagon


Double Hexagon U-Joint Sockets


| Opening | No. |  |
| :---: | :---: | :---: |
| 9 mm | MTF | 9 |
| 10 mm | MTF 10 |  |
| 11 mm | MTF 11 |  |
| 12 mm | MTF 12 |  |
| 13 mm | MTF 13 |  |
| 14 mm | MTF 14 |  |
| 15 mm | MTF 15 |  |

M9383 Set 9 mm to 15 mm


Contains seven double hexagon regular length Flex sockets. Numbers MTF 9-MTF 15 packed in steel box. Number 2281.

Metric Allen Socket Head Wrenches

| Across <br> Flats | No. |  |
| :---: | :---: | :---: |
| 4 mm | MTW | 4 |
| 5 mm | MTW | 5 |
| 6 mm | MTW | 6 |
| 8 mm | MTW | 8 |
| 10 mm | MTW 10 |  |
| Spare bits listed <br> in price list |  |  |



## Metric $3 / 8^{\prime \prime}$ Drive Attachments Socket Sets

The $3 / /^{\prime \prime}$ Drive Attachments have become a must for all good mechanics' tool kits. The chrome plated, alloy steel, extra slim handles and attachments, are designed to allow the mechanic to get at the tighest spots on modern motors,



## Metric $1 / 2^{\prime \prime}$ Drive Attachments and Sets

These Handles and Attachments are forged slimmer and lighter for your convenience, due to the use of the finest alloy steel, scientifically heat treated to assure maximum strength. These Gray Tool attachments are highly polished and heavily chrome plated.

HANDLES AND ATTACHMENTS


M9112 Set
Contains 12 pieces - 12 mm to 22 mm

M9124 Se†
Contains 23 pieces
11 mm to 27 mm


Packed in
box No. 2284


Metric $1 / 2^{\prime \prime}$ Drive Regular and Power Sockets


| MM Opening | No. |
| :---: | :---: |
| 10 | M1210 |
| 11 | M1211 |
| 12 | M1212 |
| 13 | M1213 |
| 14 | M1214 |
| 15 | M1215 |
| 16 | M1216 |
| 17 | M1217 |
| 18 | M1218 |
| 19 | M1219 |
| 20 | M1220 |
| 21 | M1221 |
| 22 | M1222 |
| 23 | M1223 |
| 24 | M1224 |
| 25 | M1225 |
| 26 | M1226 |
| 27 | M1227 |
| 28 | $M 1228$ |
| 29 | M1229 |
| 30 | M1230 |
| 31 | M1231 |
| 32 | M1232 |


| MM Opening | No. |
| :---: | :---: |
| 10 | M 1210 H |
| 11 | M 1211 H |
| 12 | M 1212 H |
| 13 | M 1213 H |
| 14 | M 1214 H |
| 15 | M 1215 H |
| 16 | M 1216 H |
| 17 | M 1217 H |
| 18 | M 1218 H |
| 19 | M 1219 H |
| 20 | M 1220 H |
| 21 | M 1221 H |
| 22 | M 1222 H |
| 23 | M 1223 H |
| 24 | M 1224 H |
| 25 | M 1225 H |
| 26 | M 1226 H |
| 27 | M 1227 H |



Power Sockets Single Hexagon

| MM Opening | No. |
| :---: | :---: |
| 16 | MD1216 |
| 17 | MD1217 |
| 18 | MD1218 |
| 19 | MD1219 |
| 20 | MD1220 |
| 21 | MD1221 |
| 22 | MD1222 |
| 23 | MD1223 |
| 24 | MD1224 |
| 25 | MD1225 |
| 26 | MD1226 |


| MM Opening | No. |
| :---: | :---: |
| 10 | MP10H |
| 11 | MP11H |
| 12 | MP12H |
| 13 | MP13H |
| 14 | MP14H |
| 15 | MP15H |
| 16 | MP16H |
| 17 | MP17H |
| 18 | MP18H |
| 19 | MP19H |
| 20 | MP20H |
| 21 | MP21H |
| 22 | MP22H |
| 23 | MP23H |
| 24 | MP24H |
| 25 | MP25H |
| 26 | MP26H |
| 27 | MP27H |
|  |  |

M9121 - Set Contains 14 regular length single hex sockets.


| CONTENTS |  |  |  |
| :---: | :---: | :---: | :---: |
| $M M$ <br> Opening | No. | MM <br> Opening | No. |
| 10 | M 1210 H | 17 | M 1217 H |
| 11 | M 1211 H | 18 | M 1218 H |
| 12 | M 1212 H | 19 | M 1219 H |
| 13 | M 1213 H | 20 | M 1220 H |
| 14 | M 1214 H | 21 | M 1221 H |
| 15 | M 1215 H | 22 | M 1222 H |
| 16 | M 1216 H | 23 | M 1223 H |

M115 - Set Contains 15 regular length double hex sockets. Packed in tray No. 1921


M9122 - Set Contains 10 deep double hex sockets. Packed in tray No. 1916.


MC 214 Set -7 mm to 32 mm


Packed in Roll No. 2014

| MM Opening | No. |
| :---: | :---: |
| 7 | MC 7 |
| 8 | MC 8 |
| 10 | MC 10 |
| 12 | MC 12 |
| 14 | MC 14 |
| 16 | MC 16 |
| 18 | MC 18 |


| MM Opening | No. |
| :---: | :---: |
| 20 | MC 20 |
| 22 | MC 22 |
| 24 | MC 24 |
| 26 | MC 26 |
| 28 | MC 28 |
| 30 | MC 30 |
| 32 | MC 32 |

MC 208 Set 10 mm to 17 mm


| MM Opening | No. |
| :---: | :---: |
| 10 | MC 10 |
| 11 | MC 11 |
| 12 | MC 12 |
| 13 | MC 13 |
| 14 | MC 14 |
| 15 | MC 15 |
| 17 | MC 17 |


| MM Opening | No. |
| :---: | :---: |
| 9 | $M C 9$ |
| 10 | $M C 10$ |
| 11 | $M C 11$ |
| 12 | $M C 12$ |
| 13 | $M C 13$ |
| 14 | $M C 14$ |
| 15 | $M C 15$ |
| 17 | $M C 17$ |
| 19 | $M C 19$ |
| 20 | $M C 20$ |
| 22 | $M C 22$ |

OPEN STOCK
COMBINATION WRENCHES

| No. | MM Opening | Length |
| :---: | :---: | :---: |
| MC 6 | 6 | $31 / 2$ |
| MC 7 | 7 | $31 / 2 "$ |
| MC 8 | 8 | 4 " |
| MC 9 | 9 | 41/2" |
| MC 10 | 10 | 5" |
| MC 11 | 11 | 53/8" |
| MC 12 | 12 | 53/8" |
| MC 13 | 13 | 6 " |
| MC 14 | 14 | 63/4" |
| MC 15 | 15 | 63/4" |
| MC 16 | 16 | 73/4" |
| MC 17 | 17 | 85/8" |
| MC 18 | 18 | 85/8" |
| MC 19 | 19 | 91/2" |
| MC 20 | 20 | 101/2" |
| MC 21 | 21 | 101/2" |
| MC 22 | 22 | $11^{\prime \prime}$ |
| MC 23 | 23 | 121/4" |
| MC 24 | 24 | 121/4" |
| MC 25 | 25 | 131/2" |
| MC 26 | 26 | 131/2" |
| MC 27 | 27 | 147/8" |
| MC 28 | 28 | 147/8" |
| MC 29 | 29 | 151/4" |
| MC 30 | 30 | 151/4" |
| MC 32 | 32 | 161/2" |
| MC 36 | 36 | $21^{\prime \prime}$ |
| MC 41 | 41 | 23" |
| MC 46 | 46 | 26" |
| MC 50 | 50 | 28" |

MC 204 Set 7 mm to 10 mm


## Metric Wrenches

## METRIC OPEN END WRENCHES



| No. | Size | Length |
| :--- | :---: | :---: |
| ME 810 | $8 \times 10 \mathrm{~mm}$ | $5^{\prime \prime}$ |
| ME 911 | $9 \times 11 \mathrm{~mm}$ | $5^{\prime \prime}$ |
| ME 1213 | $12 \times 13 \mathrm{~mm}$ | $51 / 2^{\prime \prime}$ |
| ME 1416 | $14 \times 16 \mathrm{~mm}$ | $612^{\prime \prime}$ |
| ME 1517 | $15 \times 17 \mathrm{~mm}$ | $7^{\prime \prime}$ |
| ME 1819 | $18 \times 19 \mathrm{~mm}$ | $8^{\prime \prime}$ |
| ME 2021 | $20 \times 21 \mathrm{~mm}$ | $9^{\prime \prime}$ |



METRIC SET NO. ME 6


| No. | Size | Length |
| :--- | :---: | :---: |
| ME 810 | $8 \times 10 \mathrm{~mm}$ | $5^{\prime \prime}$ |
| ME 911 | $9 \times 11 \mathrm{~mm}$ | $5^{\prime \prime}$ |
| ME 1213 | $12 \times 13 \mathrm{~mm}$ | $512^{\prime \prime}$ |
| ME 1416 | $14 \times 16 \mathrm{~mm}$ | $612^{\prime \prime}$ |
| ME 1517 | $15 \times 17 \mathrm{~mm}$ | $7^{\prime \prime}$ |
| ME 1819 | $18 \times 19 \mathrm{~mm}$ | $8^{\prime \prime}$ |

Packed in roll No. 2006

MM-10 LR 10 Piece Set Metric Allen Wrenches From 1.27 to 10 MM
Packed in roll No. 2034

|  | ~M 10 5ET METRIC HEX | No. | Hex. <br> Across Flats |  | Long <br> Arm Length |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | MM-1 <br> MM-1 $1 / 2$ <br> MM-2 <br> MM-2 $1 / 2$ <br> MM-3 <br> MM-4 <br> MM-5 <br> MM-6 <br> MM-8 <br> MM10 | $\begin{aligned} & 1.27 \\ & 1.5 \\ & 2.0 \\ & 2.5 \\ & 3 \\ & 4 \\ & 5 \\ & 6 \\ & 8 \\ & 10 \end{aligned}$ | MM <br> MM <br> MM <br> MM <br> MM <br> MM <br> MM <br> MM <br> MM <br> MM | $\begin{aligned} & 13 / 4^{\prime \prime} \\ & 2 "^{\prime \prime} \\ & 23 / 16^{\prime \prime} \\ & 23 / 8^{\prime \prime} \\ & 2810^{\prime \prime} \\ & 213 / 10^{\prime \prime} \\ & 27 / 8^{\prime \prime} \\ & 37 / 6^{\prime \prime} \\ & 44^{\prime \prime} / 10^{\prime \prime} \end{aligned}$ |

## Combination Type Wrenches \& Sets

Gray Tool Combination Wrenches have two types of openings, both the same size - a box socket for loosening very tight nuts or pulling them tighter, and an open end for fast turning. The box socket end has a $15^{\circ}$ angle for hand clearance. The $15^{\circ}$ angle open end allows turning a nut with only a $30^{\circ}$ handle movement. These wrenches are drop forged from a high quality alloy steel, and are completely polished to a mirror-like finish and chrome plated.

TU 14 S Combination Wrench Set $-3 / 8^{\prime \prime}$ to $1 \frac{1}{4^{\prime \prime}}$

Packed in Roll No. 2014


| No. | Openings | Length |
| :---: | :---: | :---: |
| 3112 | $3 / 8{ }^{\prime \prime}$ | 5" |
| 3114 | $7 / 10$ | $53 / 8{ }^{\prime \prime}$ |
| 3116 | $1 / 2^{\prime \prime}$ | $6{ }^{\prime \prime}$ |
| 3118 | \%6" | 63/4" |
| 3120 | 5/8" | 73/4" |
| 3122 | 11/6" | 85/8" |
| 3124 | $3 / 4$ " | 91/2" |
| 3126 | 13/6" | 101/2" |
| 3128 | $7 /{ }^{\prime \prime}$ | 11 |
| 3130 | 15/6" | 123/8" |
| 3132 | $1 "$ | 131/2" |
| 3134 | 11/6" | 147\%" |
| 3136 | 11/8" | 153/4" |
| 3140 | $11 / 4^{\prime \prime}$ | 161/2" |

Pal in

| Complete Range of Combination Wrenches |  |  |
| :---: | :---: | :---: |
| No. | Openings | Length |
| 3108 | 1/4", | $31 /{ }^{\prime \prime \prime}$ |
| 3110 | 56" |  |
| 3111 3112 311 |  | 41/2" ${ }_{5}$ |
| 3112 <br> 3114 <br> 1 | 38", | $55^{\prime \prime \prime}$ |
| 3116 | 1/2" | $6^{\prime \prime}$ |
| 3118 | \%6", | 634.", |
| 3120 | $5 / 8$ | 73/" |
| 3122 | "116\% | 85\%", |
| 3124 | 3/4, | 91/2", |
| 3126 | 11/6" | 101/2" |
| 3128 | \%/", | $11^{\prime \prime}$ |
| 3130 | 1/66", | 123/", |
| 3132 | 1"' | 131/2" |
| 3134 3136 3 | 1\%\%" | 14\%\%", |
| 3136 3140 | 11/8" | 153/" |
| 3142 | 15\%" | 161/2" |
| 3144 | $13 / 8$ | $2{ }^{\prime \prime}$ |
| 3146 | 176", | 21" |
| 3148 | $1 / 2^{\prime \prime}$ | 21" |
| 3152 | 15\%" | ${ }^{23 \prime \prime}$ |
| 3154 | 1\%\%" | 24" |
| 3156 | 13/", | $26^{\prime \prime}$ |
| 3158 | 1110", | ${ }^{26}{ }^{\prime \prime}$ |
| 3160 | 17/8", | ${ }^{27 \prime \prime}$ |
| 3164 | 2" | $28^{\prime \prime}$ |

TU 7 Combination Wrench Set - $7 / 6^{\prime \prime}$ to $7 / 8^{\prime \prime}$


TU 4 Combination Wrench Set $-1 / 4^{\prime \prime}$ to $3 / 8^{\prime \prime}$


| No. | Openings | Length |
| :--- | :---: | ---: |
| 3108 | $1 / 4^{\prime \prime}$ | $31 / 2^{\prime \prime}$ |
| 3110 | $1_{6}^{\prime \prime}$ | $4^{\prime \prime}$ |
| 3111 | $11 / 3^{\prime \prime}$ | $4 \frac{1}{\prime \prime}$ |
| 3112 | $3 / 8^{\prime \prime}$ | $5^{\prime \prime}$ |

Packed in Roll No. 2018

## Combination Type Wrench Sets

## TU 19 Combination Wrench Set $-3 / 8^{\prime \prime}$ to $15 / 8^{\prime \prime}$



| No. | Openings | Length |
| :---: | :---: | :---: |
| 3112 | 3/8" | 5" |
| 3114 | 7/1" | 53/8" |
| 3116 | $1 / 2$ " | 6 " |
| 3118 | \%16" | 63/4" |
| 3120 | 5/8" | 73/4" |
| 3122 | 11/6" | 85/8" |
| 3124 | $3 / 4$ " | 91/2" |
| 3126 | 13/6" | 101/2" |
| 3128 | 7/8' | וו" |
| 3130 | 15/1" | 123/8" |
| 3132 | $1 "$ | 131/2" |
| 3134 | 11/6" | 147\%" |
| 3136 | $11 / 8^{\prime \prime}$ | 153/4" |
| 3140 | $11 / 4 "$ | 161/2" |
| 3142 | 15/6" | 161/2" |
| 3144 | 13/8" | 210 |
| 3146 | 17\%" | 21" |
| 3148 | $11 / 2^{\prime \prime}$ | 21 " |
| 3152 | 15/8" | 23 " |

Packed in Roll No. 2015


## TU 9

Combination Wrench Set $-3 / 8^{\prime \prime}$ to $1^{\prime \prime}$


| No. | Openings | Length |
| :---: | :---: | ---: |
| 3112 | $3 / 8^{\prime \prime}$ | $5^{\prime \prime}$ |
| 3114 | $7 / 6^{\prime \prime}$ | $53 / 8^{\prime \prime}$ |
| 3116 | $1 / 2^{\prime \prime}$ | $6^{\prime \prime}$ |
| 3118 | $9 / 6^{\prime \prime}$ | $63 / 4^{\prime \prime}$ |
| 3120 | $5 / 8^{\prime \prime}$ | $73 / 4^{\prime \prime}$ |
| 3122 | $11 / 6^{\prime \prime}$ | $856^{\prime \prime}$ |
| 3124 | $3 / 4^{\prime \prime}$ | $91 / 2^{\prime \prime}$ |
| 3128 | $7 / 8^{\prime \prime}$ | $11^{\prime \prime}$ |
| 3132 | $1 \prime \prime$ | $131 / 2^{\prime \prime}$ |

Packed in Roll No. 2008

TU 11
Combination Wrench Set $-3 / 8^{\prime \prime}$ to $1^{\prime \prime}$


| No. | Openings | Length |
| :---: | :---: | ---: |
| 3112 | $3 / 8^{\prime \prime}$ | $5^{\prime \prime}$ |
| 3114 | $7 / 16^{\prime \prime}$ | $53 / 8^{\prime \prime}$ |
| 3116 | $1 /{ }^{\prime \prime}$ | $6^{\prime \prime}$ |
| 3118 | $9 / 6^{\prime \prime}$ | $63 / 4^{\prime \prime}$ |
| 3120 | $5 / 8^{\prime \prime}$ | $73 / 4^{\prime \prime}$ |
| 3122 | $1 / 6^{\prime \prime}$ | $858^{\prime \prime}$ |
| 3124 | $3 / 4^{\prime \prime}$ | $91 / 2^{\prime \prime}$ |
| 3126 | $13 / 6^{\prime \prime}$ | $1012^{\prime \prime}$ |
| 3128 | $7 / 8^{\prime \prime}$ | $11^{\prime \prime}$ |
| 3130 | $15 / 6^{\prime \prime}$ | $123 / 8^{\prime \prime}$ |
| 3132 | $1^{\prime \prime}$ | $131 / 2^{\prime \prime}$ |

Packed in Roll No. 2009

# Open End Wrenches and Sets 

A New Design - Streamlined, Slim, Trim, Light in Weight and Well Balanced

CONTENTS

OPEN STOCK

| Wrench No. | Openings | Length | Head Thickness |
| :---: | :---: | :---: | :---: |
| E68 | $31681 / 4$ | 3 | \%/64 |
| E810 | 1/4 \& 5/6 | 3 | 9/64 |
| E1012 | $5 / 10$ \& $3 / 8$ | 4 | 3/6 |
| E1214 | $3 / 8$ \& 7/6 | 5 | 7/32 |
| E1216 | $3 / 8$ \& $1 / 2$ | $51 / 2$ | 15/64 |
| E1416 | $7 / 16$ \& $1 / 2$ | 51/2 | 15/64 |
| E1418 | 7/16 \& 910 | 6 | $1 / 4$ |
| E1618 | $1 / 2$ \& 916 | 6 | $1 / 4$ |
| E1619 | $1 / 2$ \& $19 / 32$ | $61 / 2$ | 17/64 |
| E1820 | 9/6 \& 5/8 | 61/2 | 17/64 |
| E1822 | 916 \& 1116 | $61 / 2$ | 17/64 |
| E1922 | $19 / 32$ \& 11/16 | 7 | 9/32 |
| E2022 | 5/8 \& 11/6 | 7 | 9/32 |
| E2024 | $5 / 8 \& 3 / 4$ | 71/2 | 19/64 |
| E2224 | $11 / 16$ \& $3 / 4$ | 8 | 5/6 |
| E2228 | 11/10 \& 7/8 | 93/4 | 11/32 |
| E2426 | $3 / 4$ \& $13 / 16$ | 93/4/ | $11 / 32$ |
| E2428 | $3 / 4 \& 7 / 8$ | $93 / 4$ | 11/32 |
| E2628 | $13 / 16$ \& 7/8 | 93/4 | 11/22 |
| E2632 | $13 / 1681$ | 113/8 | 13/22 |
| E2830 | 7/8 \& 15/6 | 113/6 | $13 / 32$ |
| E2832 | 7/8 \& 1 | $113 / 8$ | $13 / 32$ |
| E2834 | 7/8 \& 11/6 | 113/8 | $13 / 32$ |
| E3032 | $15 / 16$ \& 1 | $113 / 8$ | $13 / 3$ |
| E3034 | 15/10 \& 11/16 | 113/8 | $13 / 3$ |
| E3134 | 31/32 \& 11/16 | $113 / 8$ | $13 / 32$ |
| E3236 | 1 \& 11/8 | 11\% | 27/64 |
| E3436 | $11 / 10$ \& $11 / 8$ | 117\% | 27/64 |
| E3240 | 1 \& 11/4 | 121/2 | 29/64 |
| E3440 | $11 / 10$ \& $11 / 4$ | 121/2 | 2\%/4 |
| E3640 | $11 / 8 \& 11 / 4$ | 121/2 | 29/64 |
| E3642 | $11 / 8 \& 15 / 6$ | 121/2 | 29/4 |
| E3842 | $13 / 10$ \& $15 / 16$ | 121/2 | 29/64 |
| E4042 | $11 / 4$ \& $15 / 16$ | 141/2 | 17/32 |
| E4044 | $11 / 4$ \& $13 / 8$ | 141/2 | 17/22 |
| E4046 | $11 / 4$ \& 1710 | 141/2 | 17/32 |
| E4048 | $11 / 4$ \& $11 / 2$ | 141/2 | 17/32 |
| E4446 | $13 / 8$ \& $17 / 16$ | 141/2 | 17/32 |
| E4448 | $13 / 8 \& 11 / 2$ | 141/2 | 17/32 |
| E4652 | $17 / 10$ \& 15/8 | 151/2 | 9/16 |
| E4852 | $11 / 2 \& 15 / 8$ | 151/2 | 9/10 |



No. OE 12 LR Set $1 / 4^{\prime \prime}$ to $1 \frac{1}{4^{\prime \prime}}$


Packed in Roll No. 2012

No. OE 8 LR Set $1 / 4^{\prime \prime}$ to $1^{1 / 4^{\prime \prime}}$


Packed in Roll No. 2007


Packed in Roll No. 2006

## Ignition and Small Wrench Sets

## PRECISION FORGED MINI WRENCHES

No. 16 LR Ignition Wrench Set


16 LR Set contains one each of numbers E14-E 30 in roll. No. 2028.

These wrenches have a different size opening in each end with head on one end at $15^{\circ}$ angle and the the other end at $60^{\circ}$ angle. They are drop forged with accurately milled openings, heat treated their entire length and fully chrome plated with polished heads.

| No. | Size Openings |  | Length | Thickness of Head |
| :---: | :---: | :---: | :---: | :---: |
|  | $15^{\circ}$ End | $60^{\circ}$ End |  |  |
| E 14 | 13/64" | 1564" | 31/8" | 7/64" |
| E 16 | 15/64" | 13/64 ${ }^{\prime \prime}$ | 31/8" | 7/64 |
| E 18 | 7/32 | $1 / 4$ " | 31/8" | 7/64" |
| E 20 | $1 / 4$ " | $7 / 32^{\prime \prime}$ | $31 /{ }^{\prime \prime}$ | 7/6" |
| E 22 | $9 / 32^{\prime \prime}$ | 5/16" | 31/2" | 1/8" |
| E 24 | $5 / 10^{\prime \prime}$ | $9 / 32$ | 31/2" | $1 / 8$ |
| E 26 | $11 / 32^{\prime \prime}$ | 3/8" | $4^{\prime \prime}$ | \% 64 |
| E 28 | $3 / 8{ }^{\prime \prime}$ | $11 / 32$ | $4^{\prime \prime}$ | \%/6" |
| E 30 | $7 / 10^{\prime \prime}$ | $1 / 2^{\prime \prime}$ | 41/2" | $5 / 32^{\prime \prime}$ |

## 22 LR Tune-up Kit



22 LR Set contains one each of $\mathbf{E 1 8}$-E 28 plus FG 6 A ignition feeler gauge, 127 screw starter, ignition file, EO 2 spark-testing screw driver, and 518 ignition plier packed in roll No. 2028.

No. N 20 R Miniature Wrench Set
17LR Set contains one each of numbers E 14 - E 30 plus 518 plier and 001 pocket screw driver in roll. No. 2028.

No. 17 LR Ignition Wrench Set


No. N 80 R Extra Small Box Wrench Set


| No. | Size Openings | Length |
| :---: | :---: | :---: |
| E 40 | 3/10" \& 13/64 ${ }^{\prime \prime}$ SH | 3 " |
| E 42 | 7/32 \& 15/64 ${ }^{\prime \prime}$ SH | 33/16" |
| E 44 | 1/4" \& $9 / 32^{\prime \prime}$ DH | 33/8" |
| E 46 | 5/16" \& 11/32" DH | 33/4" |

Packed in Roll No. 2026.

## Long Box and Special Wrenches

New Range of Double Offset Box Wrenches.
$45^{\circ}$ Angle Fully Polished. Drop Forged From Alloy Steel.

Long Offset Box Wrenches OPEN STOCK

| No. | Openings | Length |
| :---: | :---: | :---: |
| 2840 | 3/8" $\times 7 / 16{ }^{\prime \prime}$ | 75/8" |
| 2843 | $1 / 2^{\prime \prime} \times$ 918" | 85/8' |
| 2846 | 5/8" $\times 11 / 6$ | 93/4" |
| 2849 | $3 / 4{ }^{\prime \prime} \times 25 / 32^{\prime \prime}$ | 111/8" |
| 2852 | $13 / 6^{\prime \prime} \times 7 / 8^{\prime \prime}$ | 121/2" |
| 2855 | 15/10", $\times 1$ " | 141/4" |
| 2858 | 11/6" $\times 11 / 8 "$ | 15" |
| 2861 | $11 / 8^{\prime \prime} \times 13 /{ }^{\prime \prime}$ | 15" |
| 2864 | 11/4" $\times 17 / 6^{\prime \prime}$ | $18^{\prime \prime}$ |

## Short Type $45^{\circ}$ Ends



DO 10 Set $3 / 8^{\prime \prime}$ to $7 / 8^{\prime \prime}$


| No. | Openings | Length |
| :---: | :---: | :---: |
| 2840 | $3 / 81 \times 7 /{ }^{\prime \prime}$ | 75/8" |
| 2843 | $1 / 21 \times 916^{\prime \prime}$ | 85/8" |
| 2846 | 5/8" ${ }^{\prime \prime}$ (11/6" | 93/4" |
| 2849 | $3 / 4 \prime \prime \times 25 / 3{ }^{\prime \prime}$ | 111/8" |
| 2852 | 13/6" $\times 7 / 8^{\prime \prime}$ | 121/2" |

Packed in Roll \#2037

DO 12 Set $3 / 8^{\prime \prime}$ to $1^{\prime \prime}$


| No. | Openings | Length |
| :---: | :---: | :---: |
| 2840 | $3 / 8^{\prime \prime} \times 7 / 6$ | 75/8" |
| 2843 | 1/2" $\times 9 / 10^{\prime \prime}$ | 85/8" |
| 2846 | 5/8" $\times 11 / 10^{\prime \prime}$ | 93/4" |
| 2849 | $3 / 4^{\prime \prime} \times 25 / 2^{\prime \prime}$ | 111/8" |
| 2852 | 13/1" ${ }^{\prime \prime}$ x $78{ }^{\prime \prime}$ | 121/2" |
| 2855 | 15/1" ${ }^{\prime \prime} \times 1$ 1" | 141/4" |

Packed in Roll \#2029

## Short Type Box Wrenches

This series of $30^{\circ}$ Offset Short Box Wrenches are of the finest quality,


| Double <br> Hex. | Openings | Length |
| :---: | :---: | :---: |
| 276 | $3 / 8^{\prime \prime} \times 7 / 6^{\prime \prime}$ | $41 / 4^{\prime \prime}$ |
| 277 | $1 / 2^{\prime \prime} \times 916^{\prime \prime}$ | $5^{\prime \prime}$ |
| 278 | $538^{\prime \prime} \times 11 / 6^{\prime \prime}$ | $514^{\prime \prime}$ |
| 279 | $3 / 4^{\prime \prime} \times 13 / 6^{\prime \prime}$ | $614^{\prime \prime}$ |

Set No. 270LR - Nos. 276, 277, 278, 279 in roll No. 2018.
Set No. ${ }^{470 C}$ - The three wrenches above, in clip. No. 1.

## Flare Nut Wrenches



## Automotive Pliers

## No. B 25 - 6" Long Nose Side Cutting Plier



This long, spring tempered nose, side cutting, drop forged Plier is made from alloy stecl carefully heat treated. The keen edged cutter will cut any non-hardened wire found in automotive work except the heavier ignition wires and battery cables. Black oxidized rust resistant finish with polished head.

No. B 654 - 7" Long Nose Side Cutting Plier


Made from carefully heat treated alloy steel, this spring tempered Automotive Plier will cut most nonhardened wire found in automotive work. Size 7".

No. B $13-5^{\prime \prime}$ Flat Nose Plier


A light Plier for fine work. Checker knurling in jaws gives firm grip. Smoothly working joint and handles shaped to fit the hand comfortably. No cutter. Polished head and gun metal handles.

No. B $14-5$ " Short Chain Nose Plier


A Plier for doing fine, close mechanical work. No cutter. Accurately machined joint insures smooth, easy operation. Polished head and gun metal handles.

No. B 46 - $8^{\prime \prime}$ Chain Nose Plier


A short nose, long reach, Chain Nose Plier for work in radio and television maintenance. Reaches easily into hard-to-get-at places without obstructing the view. Will form loops and bends of all sizes. Box joint construction resists loosening and twisting action and keeps it firm and easy working long after ordinary pliers are worn out. Polished head and Parkerized handles.

Diagonal Cutting Pliers
No. 41 - $4^{\prime \prime} \quad$ No. 942 - $5^{\prime \prime}$


Drop forged of the finest quality alloy steel, these small size Electrician's Diagonal Cutting Pliers are a practical addition to any tool kit.

No. B 17 - 6" Diagonal Cutting Plier


A high grade medium size Diagonal Cutting Plier with accurately ground cutter jaws. Drop forged from alloy steel. A sure cutter and a real cotter pin puller.

No. B 18 - 7" Diagonal Cutting Plier


This high leverage Diagonal Cutting Plier is for heavy duty service. The accurately ground cutting edges assure easy cutting. Drop forged from alloy steel.

No. B 19-7"
Heavy Duty Diagonal Cutting Plier


Drop forged of fine alloy steel, this Plier has handhoned cutter knives that cut clean and will stand up. Designed to give great leverage in cutting as well as pulling cotter pins.

No. B $22-6$ " Lineman's Pliers


No. B $23-8^{\prime \prime}$ Lineman's Pliers


General utility standard Cutting Pliers for linemen and other electricians. Drop forged from alloy steel and carefully heat treated. Available in two sizes.

## Automotive Pliers

-No. 518 - 5" Slip Joint Ignition Plier


This Ignition Plier is-designed for use on all ignition units and on other equipment where small nuts and bolts are encountered. Drop forged from alloy steel, the head is correctly designed providing three opening adjustments. It is spring tempered and fully chrome plated.

No. B $42-6$ " Curved Needle Nose Plier


The long thin nose of this plier is bent at an angle which makes it very handy for reaching into far out-of-the-way corners. Jaws will not break off even though sprung or twisted out of shape. They will return to normal when pressure is released. Polished head and gun metal handles.

No. B $30-7^{\prime \prime}$ Duck Bill Wiring Plier


Square gripping jaws for work in confined quarters. The long thin jaws will reach into places where ordinary pliers will not go. Polished head and gun metal handles.

No. B 47 - 8" Duck Bill Pliers


This is a very practical Plier for use when working on equipment where little operating space is available. The long leverage grips provide for powerful leverage. Ideal for use when working on carburetors, ignition or similar units. Black oxidized rust resistant finish with polished head.

No. 886 Hose Clamp Plier


Deep slots in jaw hold clamps securely. Jaws swivel through $180^{\circ}$, automatically locks in 3 positions.

No. 258 - $91 / 2^{\prime \prime}$
Water Pump and Electricians ${ }^{4}$ Lock Nut Plier


This improved quality multi-use drop forged alloy steel Plier is for use on adjustable packing and lock nuts. It has a positive grip action with six different opening adjustments. Maximum opening two inches. Polished head and fully chrome plated.

## Rib Joint Utility Pliers

The design of this tool allows each 1 ib joint to share the shearing load, thereby relieving tension on the bolt. Adjustable to 5 positions.

$$
\text { No. B } 45-7^{\prime \prime}
$$



No. B $45-10^{\prime \prime}$


No. B $45-12^{\prime \prime}$


An excellent tool for hand seaming. Overall length $8^{\prime \prime}$, working surfaces $1^{\prime \prime} \times 312^{\prime \prime}$, weight 1 lb . Drop forged from Alloy Steel. Fully heat treated.


## Automotive Pliers

No. B 16 - $6^{\prime \prime}$ General Purpose Slip Joint Side Cutting Plier


A well balanced medium priced Plier. It provides strong gripping power and has excellent side cutter knives. Forged from alloy steel with knurled handles. Polished and fully finished in lustrous chrome.

No. B 41 - $6^{\prime \prime}$
Thin Bent Nose Plier $30^{\circ}$ Angle Slip Joint


Finished with full polish and chrome plate.
Thin Straight Nose Slip Joint Plier
Specially adapted for work of a fine nature. The thin nose will reach and grip objects where the ordinary plier will not. Full finish and chrome plate.

No. B $55-5^{\prime \prime}$


## Combination Pliers

Sturdily built, forged, heat treated and plated Slip Joint Bolted Combination Pliers in four lengths.

No. B5-5"


No. $\mathbf{B 8 - 8} \mathbf{8}^{\prime \prime}$


No. B $10-10^{\prime \prime}$


No. LS 26 - $6^{\prime \prime}$
Thin Nose Slip Joint Side Cutting Plier


This is the regular Thin Nose Plier with a side cutter added. Ideal for general use. Chrome plate with full finish.

No. B $56-6^{\prime \prime}$


## Automotive Pliers

No. - B 21 Lock Ring Plier


Outside of jaws are toothed to prevent any possibility of slipping. Plier will spread any lock ring washer up to $11 / 4^{\prime \prime}$ diameter. Size 8 ".

No. KD446 Èxternal Lock Ring Plier Max. copacity $15 / 16^{\prime \prime}$


No. KD445 Internal Lock Ring Plier


No. KD444 Lock Ring Plier Set


Interior and exterior snap Ring Pliers with Interchangeable Points. Sold only in a complete set consisting of 2 pair of pliers and full set of replaceable points. Packed in Plastic Box.

No. -KD447 Points


- This set of Interchangeable tips can be used with numbers KD445, KD446 and is included with KD444.


No. 9 R Vise Grip Welding Clamp

with
New
Easy Release

## 20 R Vise Grip Chain Wrench

First of its kind . . . a totally new concept in clamping. A chain clamp and pipe wrench with tremendous gripping power and easy release.


No. 11 R Vise Grip No. RR Pinch Off Tool "C" Clamp


B 684 Parallel Pliers


The unique design of these pliers enables the jaws to remain parallel when removing snap rings.


## Automotive Pliers

## Heavy Duty Drop Forged Linesmen and Engineers Pliers

with side cutter and pipe grip jaws.
Drop forged from alloy steel and carefully heat-treated to give real toughness in jaws and cutting edges. Finely polished heads and smooth black handles. Box joint construction gives these pliers a smooth-working action to keep them working for you long after ordinary pliers have worn out. Available in 6 inch, 7 inch and 8 inch sizes as listed below.


Induction hardened shear cutters for wire and stranded cable.


## B 951 Wire Stripper



Multi-adjustments are made by means of side screw. Equipped with opening spring.

WS 150 Wire Stripper

Strips and cuts wire 12-24 gauge. Simply dial wire size for precision wire stripping. A quality tool for the professional.


Made of the finest quality steel it cuts wire, strips wire, crimps terminals (insulated \& non-insulated) and slices bolts ( 6 sizes).

No. 522 - 71/2" Angle Nose Battery Plier


The handiest drop forged alloy steel Plier ever designed for use when loosening or tightening the terminal nuts on battery cables. Polished head and fully finished in chrome.

No. 524 Battery Terminal Spreader


Spreads battery cable terminals. A great help when removing or installing battery cables. Heat treated nickel plated with painted handles. 73/8" long.

## Regular Screw Drivers

Drivers are made with forged one-piece blades, from special alloy steel, carefully heat treated over their entire length. The handles are of the popular transparent type, which combines toughness and durability with attractive appearance. Blades are formed with an upset shoulder, against which the handles are forced, and the method of anchoring the shank eliminates the possibility of loose handles.

Adjusting Screw Driver
No. - 001 Pocket Size
No. - OOA Midget


Tip 1/16", Length 2\%/1"

| No. | Length of Blade | Width of Tip | Overall Length |
| :---: | :---: | :---: | :---: |
| $\begin{aligned} & \mathrm{S} 01 \\ & \mathrm{~S} 02 \end{aligned}$ | $1_{1 / 1 / 2}^{1 / 2}$ | 产/", | $\begin{aligned} & 31 / 2^{\prime \prime \prime} \\ & 23 / 4^{\prime \prime} \end{aligned}$ |

## Round Shank



Gray-Tool Round Shank Screw Drivers are ideal for automotive mechanics. They are made with blades ranging from $4^{\prime \prime}$ to $12^{\prime \prime}$, and all tips are taper ground, with the entire length of the blades finely polished.

| No. | Length <br> of Blade | Width <br> of Tip | Overall <br> Length |
| :---: | :---: | :---: | :---: |
| 04 | $4^{\prime \prime}$ | $1 / 4^{\prime \prime}$ | $712^{\prime \prime}$ |
| 06 | $6^{\prime \prime}$ | $5 / 16^{\prime \prime}$ | $1014^{\prime \prime}$ |
| 08 | $8^{\prime \prime}$ | $3 / 8^{\prime \prime}$ | $121_{2}^{\prime \prime}$ |
| 010 | $10^{\prime \prime}$ | $3 / 8^{\prime \prime}$ | $1412^{\prime \prime}$ |
| 012 | $12^{\prime \prime}$ | $7 / 16^{\prime \prime}$ | $16 \frac{1}{4^{\prime \prime}}$ |

## Square Shank



Gray-Tool Square Shank Screw Drivers are primarily designed for strength and are confidently recommended for heavy work.

| No. | Length <br> of Blade | Width <br> of Tip | Overall <br> Length |
| :--- | :---: | :---: | :---: |
| 504 | $4^{\prime \prime}$ | $5 / 16^{\prime \prime}$ | $71 / 2^{\prime \prime}$ |
| 506 | $6^{\prime \prime}$ | $7 / 16^{\prime \prime}$ | $101 / 4^{\prime \prime}$ |
| $S 08$ | $8^{\prime \prime}$ | $1 / 2^{\prime \prime}$ | $1212^{\prime \prime}$ |
| S012 | $12^{\prime \prime}$ | $9 / 16^{\prime \prime}$ | $163^{\prime \prime}$ |


| Electricians | No. | Length of Blade | Width of Tip | Overall Length |
| :---: | :---: | :---: | :---: | :---: |
| Gray-Tool Electricians' Screw Drivers, regardless | 003 | 3 " | 3/16 | 61/2" |
| of length, are made from $3 / 6^{\prime \prime}$ stock, which makes | 006 | 6 ' | 3/16" | $91 / 2^{\prime \prime}$ |
| them invaluable for reaching hard-to-get-at-screws. | 0010 | 10" | 3/16" | 131/2" |



One of the most powerful screw drivers ever manufactured. This extremely heavy duty screw driver will

| No. | Length <br> of Blade | Width <br> of Tip | Overall <br> Length |
| :---: | :---: | :---: | :---: |
| $05-\mathbf{2 1 / 2}$ | $\mathbf{2 1 / 2 ^ { \prime \prime }}$ | $1_{2}^{\prime \prime}$ | $\mathbf{7}^{\prime \prime}$ |

deliver tremendous torque, yet is small enough to get into a confined space.



# Robertson, Phillips \& Spinner Drivers 

## Phillips Screw Drivers Composition Handle


## Special Heavy-Duty Phillips Screw Drivers

These extra heavy duty, blue-handled Phillips Screw Drivers have been specially heat treated to give them greater strength than the regular Phillips Screw Driver. Fully guaranteed, they are designed for heavy industrial use.

| Na. | Blade <br> Overall <br> Length |  | Fits <br> Phillips <br> Screws |  |
| :--- | :---: | :---: | :---: | :---: |
|  | Length | Diam. |  <br> CPX 1 <br> CPX 2 | $3^{\prime \prime}$ |
| $4^{\prime \prime}$ | $1 / 6^{\prime \prime}$ | $6^{\prime \prime}$ | $8^{\prime \prime}$ | 5 and 4 |

## Short Phillips Screw Drivers

|  | No. | Blade |  | Fits Phillips Screws |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Length | Diameter |  |
| Plastic Handle | SP 11 | $1 "$ | 3/16" | No. 4 and Smaller |
| Plastic Hande | SP 12 | $13 / 8{ }^{\prime \prime}$ | $1 / 4{ }^{\prime \prime}$ | No. 5 ta Na. 9 inc. |

## Robertson Screw Drivers

The extensive use of Robertson screws makes it necessary for all mechanics to own a set of Robertson Screw Drivers. Hand Drivers may be distinguished by the different color handles.

Chart showing sizes of various Socket Screws Driven by each driver


| Color | Stubby | Junior | Jumbo | Wood Screws | Machine Screws |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Oronge | - | RB 00 | - | 1 \& 2 | 1 \& 2 |
| Yellow | - | RB 0 | - | 3 \& 4 | 3 \& 4 |
| Green | RB 121 | RB 1 | RB 221 | 16 \& Lorger | 5/6" \& Lorger |
|  |  | $71 / 2^{\prime \prime} \mathrm{L}$. | - | 5,6\&7 | 5,6\&7 |
| Red | RB 122 | RB 2 | RB 222 |  |  |
|  |  | 71/2" ${ }_{\text {R }}$ | $\text { RB } 223$ | 8\&9 | \# 8 \& 10 |
| Block | RB 123 | $\mathrm{RB}^{1 / 2 \prime 2} \mathrm{~L}$. | $\text { RB } 224$ | 10,12 \& 14 | \# 12 \& $1 / 4$ |

Stubby Type

| No. | Hexagon Opening | Overall Length | Drill Depth | Color Code |
| :---: | :---: | :---: | :---: | :---: |
| CH 06 | $3^{16}{ }^{\prime \prime}$ | 6 " | 11/8" | Black |
| CH 08 | $1 / 4{ }^{\prime \prime}$ | 6 " | 21/4" | Red |
| CH 10 | 5/6" | $6 "$ | 21/4" | Amber |
| CH 11 | $11 / 32$ | 6 " | 21/4" | Green |
| CH 12 | $3 / 8{ }^{\prime \prime}$ | $6 "$ | $5^{\prime \prime}$ | Blue |
| CH 14 | 7/6" | 71/8" | $5{ }^{\prime \prime}$ | Brown |
| CH 16 | $1 / 2$ " | 71/8" | $5 "$ | Red |



Display Board \# SDD2


Contains 39 items which include nut spinners, flexible screw and extensions, $1 / 4$ to $3 / 8$ drive handles. See list of contents. Packed in display block No. 1956.


## Display Board \# SDD3

Has a complete range of Phillips and Robertson Screw Drivers.

Contains 48 pieces. See contents. Packed in display block No. 1957

SD 13 LR
Complete standard

## Blade Screw

Driver Set

Contents
S $01 \quad 003$
S 02006
$04 \quad 0010$
06 E 02
$08 \quad 001$
$010 \quad 127$
012
Roll No. 2017.

SD 6 LR

## Phillips Screw

Driver Set
Contents
SP 11
SP 12
CP 1
CP 2
CP 3
CP 4
Roll No. 2016

## Special Screwdrivers and Pick-up Tools

No. 7035 All-Magnetic Screw Driver


Hold-E-Zee Screw Drivers

No. - E 02 Neon Tube Pocket Type


Neon Tube in the handle for testing.

## S019 Uni Driver

With Non-Turning Cap


Has 8 Assorted Blades

## No. SA 1 Scratch Awl

Scratch awl overall length 7". Made from High Quality alloy steel.

## Screw Starters

Magnetic Pick-Up Tools

| No. | Length |
| :---: | :---: |
| K 1 | $9^{\prime \prime}$ |
| K 2 |  |
| K 3 (Flexible) | $27^{\prime \prime}$ extended |
| $171 / 2^{\prime \prime}$ |  |

The K 2 has a telescope type extension handle. These extremely useful tools have a powerful magnet in the hinged end.


K 906 Pocket Clip Type, with Alnico Magnet, picks up $3 / 4 \mathrm{lb}$. or more. Displayed in K906 deal. (12)

## Mechanical Fingers

| No. | Reach | Length |
| :---: | :---: | :---: |
| K 4 <br> K 6 <br> K 8 <br> K 9 <br> K 12 <br> K 24 <br> K 36 | $4^{\prime \prime}$ $6^{\prime \prime}$ $10^{\prime \prime}$ Fully Flexible $15^{\prime \prime}$ $12^{\prime \prime}$ $24^{\prime \prime}$ $36^{\prime \prime}$ | $\begin{gathered} 63 / 4^{\prime \prime} \\ 83 / 4^{\prime \prime} \\ 123 / 4^{\prime \prime} \\ 18^{\prime \prime} \\ 143 / 4^{\prime \prime} \\ 263_{4}^{\prime \prime} \\ 383 / 44^{\prime \prime} \end{gathered}$ |

For starting screws, inserting and removing small washers, pins and similar objects, this tool is invaluable. The two spring steel tingers are forced open by pressure on the plunger. When pressure is released, jaws grip object firmly.

## Punches and Chisels

Gray Tool has spared no effort to offer the best in these types of tools. These quality Punches and Chisels are forged from special Silicon-Manganese alloy steel and are carefully heat treated. Mechanics find that the bits are hard and tough enough to work on any untempered material, but still sufficiently soft to be sharpened with a file. They have well crowned, comparatively soft heads, which reduce chipping and allow them to be readily redressed when battered. Blade tips and heads full polished, handles finished in baked blue enamel with orange inlay markings.


## PIN PUNCHES

| No. | Size Stock | Point Diometer | Length |
| :---: | :---: | :---: | :---: |
| C 28 B | 3/8' | 5/32" | 45/8" |
| C 28 | 3/8" | 1/8" | 5". |
| C 28 A | 3/8" | $52^{\prime \prime}$ | 51/4" |
| C 29 | 3/8" | 3/10 | $51 / 2^{\prime \prime}$ |
| C 29 A | $1 / 2$ " | 7/32" | 61/4" |
| C 30 | 1/2" | $1 / 4$ " | $61 / 2$ " |
| C31 | $1 / 2^{\prime \prime}$ | 5/16 | $63 / 4$ " |

## LONG TAPER PUNCHES

| No. | Size Stock | Point Diometer | Length |
| :---: | :---: | :---: | :---: |
| C 25 A | $3 / 8{ }^{\prime \prime}$ | $1 / 8{ }^{\prime \prime}$ | $81 / 4{ }^{\prime \prime}$ |
| C 25 | 3/8" | 5/22" | $81 / 4$ " |
| C 26 | 1/2" | 3/10 | $91 / 4$ |
| C 26 A | $1 / 2$ | 7/32' | $91 / 4$ |
| C 50 | $1 /{ }^{\prime \prime}$ | $1 / 4{ }^{\prime \prime}$ | $93 / 4{ }^{\prime \prime}$ |
| C 51 | $1 / 2^{\prime \prime}$ | 5/6" | $93 / 4$ " |

## FLAT CHISELS

| No. | Size Stock | Width of Cut | Length |
| :---: | :---: | :---: | :---: |
| C! | 3/10" | 1/4" | 4 " |
| C1A | 1/4.", | 5/10", | $5{ }^{\prime \prime}$ |
| C 2 | 3/8" | 1/2", | $51 / 2 \prime \prime$ $61 / \prime \prime$ |
| C 4 | $5 / 8$ | 3/8, | 61/ ${ }^{\prime \prime}$ |
| C 5 | 3/4. | $7 / 8$ | $71 /{ }^{\prime \prime}$ |
| C 6 | 7/8' | $1 "$ | $8{ }^{\prime \prime}$ |
| C 7 | 1 " | $11 / 4^{\prime \prime}$ | $81 / 2^{\prime \prime}$ |

CAPE CHISELS

| No. | Size Stock | Width of Cut | Length |
| :---: | :---: | :---: | :---: |
| $\begin{array}{\|lll} \hline C & 11 \\ C & 12 \\ C & 13 \end{array}$ | $\begin{aligned} & 3 / 8 "^{\prime \prime} \\ & 1 / 2, " \\ & 5 / 8 \prime \end{aligned}$ | $\begin{aligned} & 1 / 8 " 18 " 1 \\ & 1 / 4, \\ & 3 / 8 \end{aligned}$ | $41 / 2^{\prime \prime}$ $61 / 4$ 7 " |

DIAMOND POINT CHISELS

| No. | Size Stock | Width of Cut | Length |
| :--- | :---: | :---: | :---: |
| C 15 | $1 / 2^{\prime \prime}$ | $1 / 4^{\prime \prime}$ | $61^{\prime \prime}$ |
| C 16 | $5 / 8^{\prime \prime}$ | 3 |  |

PRICK PUNCH

| No. | Size Stock | Length |
| :---: | :---: | :---: |
| C 32 | $3 / 8^{\prime \prime}$ | $5^{\prime \prime}$ |

CENTRE PUNCH

| No. | Size Stock | Length |
| :---: | :---: | :---: |
| C 34 | $3 /{ }^{\prime \prime \prime}$ | $5^{1 / 4^{\prime \prime}}$ |
| C 35 | $1 / 2^{\prime \prime}$ | $7^{\prime \prime}$ |

RIVET BUSTER

| No. | Size Stock | Width of Cut | Length |
| :--- | :---: | :---: | :---: |
| C 36 | $3 / 4^{\prime \prime}$ | $13 / 6^{\prime \prime}$ | $12^{\prime \prime}$ |

ROUND NOSE CHISELS

| No. | Size Stock | Width of Cut | Length |
| :--- | :---: | :---: | :---: |
| C 18 | $1 / 2^{\prime \prime}$ | $1 / 4^{\prime \prime}$ | $61 /{ }^{\prime \prime}$ |
| C 19 | $5 / 8^{\prime \prime}$ | $3 / 8^{\prime \prime}$ | $7^{\prime \prime}$ |

RIVET BUSTER

LINING-UP PUNCHES (Silico-Manganese Steel)

| No. | Size Stock | Point Diameter | Length |
| :--- | :---: | :---: | :---: |
| 8385 | $3 / 4^{\prime \prime}$ | $1 / 4^{\prime \prime}$ | $18^{\prime \prime}$ |
| 8386 | $5 / 8^{\prime \prime}$ | $1 / 4^{\prime \prime}$ | $15^{\prime \prime}$ |

PRY BAR - TAPERED END

| No. | Size Stock | Length |
| :---: | :---: | :---: |
| C 39 | $9 / 16^{\prime \prime}$ | $1514^{\prime \prime}$ |

LONG FLAT CHISELS

| No. | Size Stock | Width of Cut | Length |
| :--- | :---: | :---: | :---: |
| C 9 | $53^{\prime \prime}$ | $3 / 4^{\prime \prime}$ | $12^{\prime \prime}$ |
| C 10 | $3 / 4^{\prime \prime}$ | $78^{\prime \prime}$ | $14^{\prime \prime}$ |
| C 14 | $7 / 8^{\prime \prime}$ | $1 "$ | $18^{\prime \prime}$ |

PRY OR PINCH BAR

| No. | Size Stock | Length |
| :---: | :---: | :---: |
| C38 | $5 / 8^{\prime \prime}$ | $16^{\prime \prime}$ |

HEAVY DUTY PRY BAR

| No. | Size Stock | Length |
| :---: | :---: | :---: |
| $C_{40}$ | $3 / 4^{\prime \prime}$ | $24^{\prime \prime}$ |

No. C 46-LR Punch and Chisel Set


Set contains one each of the following:
C2. C3, C4, C5, C6, C12, C15, C25, C26, C28,
C29, C30, C34 Roll No. 2023
C48-LR PUNCH AND CHISEL SET

No. C 45-LR Flat Chisel Set


Set contains one each of the following: C2, C3, C4, C5, C6 Roll No. 2022


Set contains one each of the following: In Roll No. 2025
$\mathrm{C} 2, \mathrm{C} 3, \mathrm{C} 4, \mathrm{C} 5, \mathrm{C} 6, \mathrm{C} 21, \mathrm{C} 22, \mathrm{C} 23, \mathrm{C} 24, \mathrm{C} 27, \mathrm{C} 28, \mathrm{C} 29, \mathrm{C} 30, \mathrm{C} 31, \mathrm{C} 25, \mathrm{C} 26, \mathrm{C} 32, \mathrm{C} 34, \mathrm{C} 35$

## Punch and Chisel Sets

No. C 47-LR Punch and Chisel Set


| C 2 | C 10 | C 21 |
| :--- | :--- | :--- |
| C 3 | C 15 | C 22 |
| C 4 | C 16 | C 23 |
| C 5 | C 18 | C 28 |
| C 6 | C 19 | C 29 |
| C 7 | C 25 | C 30 |
| C 12 | C 26 | C 34 |
| C 13 | C 32 | C 36 |
|  |  | C 38 |

Packed in Roll No. 2024

No. PC 39 Dealer's Merchandiser


Display contains the following:

| contains the following: | $3-$ C 3 | $2-$ C 23 |  |
| :---: | :---: | :---: | ---: |
| $1-$ C 6 | $3-$ C 21 | $4-$ C 2 | $3-$ C 25 |
| $1-$ C 5 | $2-$ C 28 | $4-$ C 34 | $2-$ C 26 |
| $3-$ C 4 | $2-$ C 29 | $3-$ C 32 | $2-$ C 30 |
| $2-$ C 18 | $2-$ C 22 | Displayed in Block No. 1950 |  |

## THE PC 40 PUNCH \& CHISEL DISPLAY



- Designed to hold the full range of Gray Punches \& Chisels.
- Complete, but not overloaded with slow movers, for the display has been mathematically selected and arranged for maximum profits and furnover.
- In addition to convenient product number's marked around each slot, the style of the punch or chisel is printed neatly on the eye-catching front panel.
- The PC40 should be your answer to Punch \& Chisel Sales.



## Micrometer Torque Products

## Micrometer Adjustable Torque Wrenches

- Signaling feature - hear the click and feel the break when preset torque is reached.
- Torque setting fixed when locked into place, it cannot accidentally change.
- Accuracy $\pm 2 \%$.
- Minimum operating fatigue.
- Lightweight and slim.
- Torques accurately in a positive or negative direction.
- An excellent production or service tool.
$3 / 8^{\prime \prime}$ Drive Models - Inch or Foot lbs.

| Model No. | Copocity | Groduotions | Drive |
| :---: | :---: | :---: | :---: |
| 3 SDR 750F | $60-750 \mathrm{in} . \mathrm{lbs}$. | $5 \mathrm{in} . \mathrm{lbs}$. | $3 / 8^{\prime \prime}$ |
| 3 SDR 75F | $5-75 \mathrm{ff} . \mathrm{lbs}$. | $1 / 2 \mathrm{ff} . \mathrm{lb}$. | $3 / 8^{\prime \prime}$ |
| 3 SDR 10 MF | $2-10 \mathrm{M} . \mathrm{Kgs}$. | $.05 \mathrm{M} . \mathrm{Kg}$. | $3 / 8^{\prime \prime}$ |


$1 / 22^{\prime \prime}$ Drive Model - Foot Ibs.

| Model No. | Copocity | Groduotions | Drive |
| :---: | :---: | :---: | :---: |
| 4 SDR 150F | $10-150 \mathrm{ft} . \mathrm{lbs}$. | $1 \mathrm{ft} . \mathrm{lb}$. | $1 / 22^{\prime \prime}$ |
| 4 SDR 1600F | $700-1600 \mathrm{in}$. lbs. | $10 \mathrm{in} . \mathrm{lb}$. | $1 / 2^{\prime \prime}$ |
| 4 SDR 20 MF | $5-20 \mathrm{M} . \mathrm{Kgs}$. | $.1 \mathrm{M} . \mathrm{Kg}$. | $1 / 2^{\prime \prime}$ |



## Torque-Limiting Screwdriver

- Easy to operate - simply dial torque, insert bit, and tool is ready for the job.
- Completely calibrated and adjustable.
- Clutch releases automatically when torque is reached - no over-torque.
- Capacity: 2-35 in. lbs.
- Accurate $\pm 3 \%$.
- Uses standard bits, sockets and adaptors.
- Bring precise accuracy to production lines.
- Can be preset and sealed for production use.

| Ronge | Groduotion | Length | Grip Dio. | Weight | Hex Drive |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $2-36$ in. lbs. | $2 \mathrm{in} lbs.$. | $71 / 2^{\prime \prime}$ | $13 / 8^{\prime \prime}$ | 8 oz. | $1 / 4^{\prime \prime}$ |

Also Available in Metric.


No. 00-24 SQ. Drive Adapter - converts the C-36 Torque Screwdriver to $1 / 4$ " socket use.

## Miniature Bits $1 / 4^{\prime \prime}$ Hex Drive

| Slotted Bits |  |  | Phillips Bits |  |  | Hex Bits |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Model No. | Blode <br> Width | Blode Thickness | Model No. | $\begin{aligned} & \text { Bit } \\ & \text { Point } \\ & \text { Size } \end{aligned}$ | Screw Size (Any Type or Heod Style) | Model No. | Bit Hex Size | $\begin{array}{\|c} \text { Set } \\ \text { Screw } \\ \text { Size } \end{array}$ | Sock 36 Series | $\begin{gathered} \text { Heod } \\ 60 \\ \text { Series } \end{gathered}$ | Flot Heod | Button Heod |
| SL-055 | .055" | .010" | PH-O | 0 | 0, 1 | SS-028 | .028" | 0 |  |  |  |  |
| SL-070 | .070" | . 012 " | PH-1 | 1 | 2, 3, 4 | SS-035 | .035" | 1,2 |  |  | 0, 1 | 0 |
| SL-080 | .080" | . $015^{\prime \prime}$ |  |  |  | SS-050 | .050" | 3, 4 | 0, 1 | 0 | 2 | 1, 2 |
| SL-100 | .100" | .105" |  |  |  | SS-062 | 1/1" | 5,6 | 2 | 1 | 3, 4 | 3, 4 |

No. 2789 Adapter - required for use with the above bits.

# Mechanics Torque Wrenches 

ALSO AVAILABLE WITH METRIC READING SCALE

ROUND BEAM MODELS

FOOT POUNDS

| Catalog | Capacity <br> Foot Pounds | Drive Square <br> Size (inches) |
| :--- | :---: | :---: |
| Number | 0 to 25 | $3 / 8$ |
| DR $25-3 / 8$ | 0 to 25 | $1 / 2$ |
| DR $25-1 / 2$ | 0 to 50 | $3 / 8$ |
| R $50-3 / 8$ | 0 to 50 | $1 / 2$ |
| R $50-1 / 2$ | 0 to 100 | $1 / 2$ |
| R 100 | 0 to 150 | $1 / 2$ |
| R 150 | 0 to 200 | $1 / 2$ |
| R 200 | 0 to 300 | $3 / 4$ |
| R300 |  |  |

INCH POUNDS

| Catalog <br> Number | Capacity <br> Inch Pounds | Drive Square <br> Size (inches) |
| :--- | :---: | :---: |
| DR 100-1 | 0 to 100 | $3 / 8$ |
| DR 200-1 | 0 to 200 | $3 / 8$ |
| DR $300-1-3 / 8$ | 0 to 300 | $3 / 8$ |
| DR $300-1-1 / 2$ | 0 to 300 | $1 / 2$ |
| R $600-1$ | 0 to 600 | $1 / 2$ |
| R 1200-1 | 0 to 1200 | $1 / 2$ |
| R 1800-1 | 0 to 1800 | $1 / 2$ |
| R 2400-1 | 0 to 2400 | $1 / 2$ |




F 200
to 200

| F 300 | 0 to 300 | $3 / 4$ |
| :--- | :--- | :--- |

SENSORY MODELS

Only Sensory Models can be Preset for Required Torque

| S 25 S 50 | $\begin{array}{ll}0 & \text { to } 25 \\ 0 & \text { to } 50\end{array}$ | $1 / 2$ $1 / 2$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| S 100 | 0 to 100 | $1 / 2$ | S 300-1 | 0 to 300 | $1 / 2$ |
| S 150 S 200 | 0 to 150 | 1/2 |  |  |  |
| S 200 S 300 | $\begin{aligned} & 0 \text { to } 200 \\ & 0 \text { to } 300 \end{aligned}$ | 1/2 |  |  |  |



Torque Wrench extensions for $3 / 4^{\prime \prime}$ dr. Models only


No. M28-30, 30" extension doubles capacity to 600 ft . lbs.


No. M28-60, 60" extension triples capacity to 900 ft . lbs.


## Torque Wrenches and Multipliers



FOOT POUNDS

| Catalog | Capacity <br> Foot Pounds | Drive Square <br> Size (inches) |
| :--- | :---: | :---: |
| M 25mber | 0 to 25 | $3 / 8$ |
| M 251/2 | 0 to 25 | $1 / 2$ |
| M 50 | 0 to 50 | $1 / 2$ |
| M 1100 | 0 to 100 | $1 / 2$ |
| M 150 | 0 to 150 | $1 / 2$ |
| M 200 | 0 to 200 | $3 / 4$ |
| M 300 | 0 to 300 | $3 / 4$ |

## Torque Multipliers 600 to 10,000 Foot Pounds

## Torque Wrench Applies and Measures Torque a Planetary Gear Box Multiplies it!

Write to Gray Tool Co., Bromalea, Ontorio, Conodo for Information ond Detoiled Specificotions


| Madel <br> Na. | Max. <br> Torque <br> Ft. Lbs. | Input <br> Drive <br> Size | Output <br> Drive <br> Size | Rotia <br> of <br> Gears | Over- <br> All <br> Length |
| :--- | :---: | :---: | :---: | ---: | ---: |
| TM 850 | 850 | $1 / 2^{\prime \prime}$ | $34^{\prime \prime}$ | $4-1$ | $26^{\prime \prime}$ |
| TM 2000 | 2000 | $3 / 4^{\prime \prime}$ | $1^{\prime \prime}$ | $4-1$ | $26^{\prime \prime}$ |
| TM 4000 | 4000 | $1.0^{\prime \prime}$ | $1.5^{\prime \prime}$ | $4.33-1$ | $30.5^{\prime \prime}$ |
| TM 12000 | 10000 | $1.0^{\prime \prime}$ | $2.5^{\prime \prime}$ | $6-1$ | $30^{\prime \prime}$ |

150 foot pounds is applied here with a 150 foot pound torque wrench, but the torque multipliers build this up to 10,000 foot pounds at the output drive.

Fit the Torque Requirement into the Chart.
Consider the Swing Room Available on the Job.


Striking Face Box Wrenches - Alloy Steel


Shot Blast Finish

Drop-forged and heat-treated for hard service
Double Hexagon Offset Head

| No. | Opening | Length | Head |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  | Thickness | Outside Diameter |
| $\begin{aligned} & 8807 \\ & 8807 A \\ & 8808 \\ & 8808 A \end{aligned}$ | $\begin{aligned} & 11 / 1^{\prime \prime \prime} \\ & 118^{\prime \prime} \\ & 11 / 4^{\prime \prime} \\ & 156^{\prime \prime} \end{aligned}$ | $\begin{gathered} 101 / 2 \prime \prime \prime \\ 101 / 2^{\prime \prime} \\ 11^{\prime \prime} \\ 11^{\prime \prime} \end{gathered}$ | $\begin{aligned} & 136_{6 \prime \prime}^{\prime \prime} \\ & 13,16^{\prime \prime} \\ & 7 / 8^{\prime \prime} \\ & 7 / 8{ }^{\prime \prime} \end{aligned}$ | $\begin{aligned} & 127 / 32^{\prime \prime} \\ & 127 / 32^{\prime \prime} \\ & 233_{3 \prime}^{\prime \prime} \\ & 23 / 3{ }^{\prime \prime} \end{aligned}$ |
| $\begin{aligned} & 8809 \\ & 8809 \mathrm{~A} \\ & 8810 \\ & 8810 \mathrm{~A} \end{aligned}$ | $\begin{aligned} & 176^{\prime \prime} \\ & 112^{\prime \prime} \\ & 15 / 8^{\prime \prime} \\ & 111 / 6^{\prime \prime} \end{aligned}$ | $\begin{aligned} & 111 / 2^{\prime \prime} \\ & 111 / 2^{\prime \prime} \\ & 12^{\prime \prime} \\ & 12^{\prime \prime} \end{aligned}$ |  | $\begin{aligned} & 23 / 8^{\prime \prime} \\ & 23 / 8^{\prime \prime} \\ & 258^{\prime \prime} \\ & 25 / 8^{\prime \prime} \end{aligned}$ |
| $\begin{aligned} & 8811 \\ & 8811 \mathrm{~A} \\ & 8812 \\ & 8 B 13 \end{aligned}$ | $\begin{gathered} 133 / 16^{\prime \prime} \\ 171^{\prime \prime} \\ 23 / 6^{\prime \prime} \end{gathered}$ | $\begin{aligned} & 121 / 2^{\prime \prime} \\ & 121 / 2^{\prime \prime} \\ & 13^{\prime \prime} \\ & 131 / 2 " \end{aligned}$ | $\begin{aligned} & 11 / 8^{\prime \prime} \\ & 11 / 8^{\prime \prime} \\ & 11 / 4 \prime \prime \\ & 13 / 8^{\prime \prime} \end{aligned}$ | $\begin{gathered} 2^{29} 9_{32}^{\prime \prime} \\ 2292^{\prime \prime} \\ 352^{\prime \prime} \\ 3{ }^{15} 3_{2 \prime \prime}^{\prime \prime} \end{gathered}$ |
| $\begin{aligned} & 8813 A \\ & 8814 \end{aligned}$ | $\begin{aligned} & 21 / 4^{\prime \prime \prime} \\ & 23 / 8^{\prime \prime} \end{aligned}$ | $\begin{array}{r} 131 / 2^{\prime \prime \prime} \\ 14^{\prime \prime} \end{array}$ | $\begin{aligned} & 13 / 8^{\prime \prime} \\ & 11 / 2^{\prime \prime} \end{aligned}$ | $\begin{aligned} & 315 / 3{ }^{\prime \prime} \\ & 3^{232} / 2_{2}^{\prime \prime} \end{aligned}$ |
| $\begin{aligned} & 8815 \\ & 8815 A \end{aligned}$ | $\begin{aligned} & 29 / 6^{\prime \prime} \\ & 25 / 8^{\prime \prime} \end{aligned}$ | $\begin{aligned} & 141 / 2^{\prime \prime} \\ & 141 / 2^{\prime \prime} \end{aligned}$ | $\begin{aligned} & 158^{\prime \prime} \\ & 15 / 8^{\prime \prime} \end{aligned}$ | $\begin{aligned} & 329 / 32^{\prime \prime} \\ & 329 / 32^{\prime \prime} \end{aligned}$ |
| $\begin{aligned} & 8816 \\ & 8816 \mathrm{~B} \end{aligned}$ | $\begin{aligned} & 23 / 4^{\prime \prime} \\ & 2^{15 / 16^{\prime \prime}} \end{aligned}$ | $\begin{aligned} & 15^{\prime \prime} \\ & 16^{\prime \prime} \end{aligned}$ | $\begin{aligned} & 13 / 4^{\prime \prime} \\ & 178^{\prime \prime} \end{aligned}$ | $\begin{aligned} & 45 / 32^{\prime \prime} \\ & 4^{21 / 32} \end{aligned}$ |
| $\begin{aligned} & 8817 A \\ & 8817 \end{aligned}$ | $\begin{gathered} 3^{\prime \prime} \\ 31 / 8^{\prime \prime} \end{gathered}$ | $\begin{aligned} & 161 / 2 " \\ & 161 / 2 " \end{aligned}$ | $\begin{aligned} & 2^{\prime \prime} \\ & 2^{\prime \prime} \end{aligned}$ | $\begin{aligned} & 4150^{\prime \prime} \\ & 415 /{ }^{\prime \prime \prime} \end{aligned}$ |

## Engineers' Wrenches

| Wrench Na . | Wrench Opening | Overall Length Inch Approx. | Thickness of Head Inch | Handle Offset Inch |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | A + Head | $\begin{aligned} & \text { At } \\ & \text { End } \end{aligned}$ |
| 901A | 7/16 | 91/2 | 11/32 | \%6 | 11/2 |
| 901 | 1/2 | 91/2 | 11/32 | \%/6 | 11/2 |
| 901 B | 9/6 | $91 / 2$ | 11/32 | \%/6 | 11/2 |
| 903A | 5/8 | 12 | 766 | $3 / 4$ | 111/6 |
| 903 | 11/16 | 12 | 7/6 | $3 / 4$ | 111/6 |
| 904A | $3 / 4$ | 12 | 7/6 | $3 / 4$ | 111/6 |
| 905A | 13/16 | 15 | 19/32 | 7/8 | 17/8 |
| 905 | 7/8 | 15 | 19/32 | 7/8 | 17/8 |
| 906 | 1\%6 | 15 | 19/32 | 7/8 | 17/8 |
| 906B | 1 | 15 | 19/32 | 7/8 | 17/8 |
| 907 | 11/6 | 17 | 5/8 | 1 | 23/8 |
| 907A | 11/8 | 17 | 5/8 | 1 | 23/8 |
| 908 | 11/4 | 19 | 11/6 | 11/8 | 23/4 |
| 908A | 15/6 | 19 | 11/6 | 11/8 | 23/4 |
| 909 | 1766 | 21 | 13/16 | 11/4 | 31/6 |
| 909A | 11/2 | 21 | 13/16 | 11/4 | 31/6 |
| 910 | 15/8 | 23 | 13/6 | 17/6 | 33/8 |
| 910A | 1116 | 23 | 13/16 | 1766 | 33/8 |
| 911 | 113/6 | 25 | 7/8 | 15/8 | 311/6 |
| 911 A | 17/8 | 25 | 7/8 | 15/8 | 311/6 |
| 912 |  | 25 | 7/8 | 15/8 | 311/6 |

Black Enamel Finish

| No. | $\begin{aligned} & \text { Open- } \\ & \text { ing } \end{aligned}$ | Length | Head Thickness | No. | $\begin{aligned} & \text { Open- } \\ & \text { ing } \end{aligned}$ | Length | Head Thickness | No. | Opening | Leng | Head Thickness |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 000SE | $1 / 4$ | 31/2 | 7/30 | 706SE | 1 | 91/4 | \% | 12ASE | 2 K |  |  |
| OOSE | K | $31 / 2$ | $7 / 3$ | 7SE | 11/6 | 101/2 | 5/8 | 13SE | 2K6 | 19 | 1/10 |
| 700SE | 3/8 | 4 | 1/4 | 707 SE | 11/8 | 101/2 | 5 | 13SE | 2\%6 | 19 | 1116 |
| 701SE | 76 | 45/8 | \%6 | 8SE | $11 / 4$ | $12{ }^{2}$ | 3/4 | 14SE | 23/6 | 19 | 11/6 |
| 1SE | 1/2 | 45/6 | \%6 | 8ASE | 1\% | 12 | $3 / 4$ | 14SE 14ASE | 23/6 | 22 | 11/1/6 |
| 702SE | $\%$ | 51/2 | $3 / 8$ | 708ASE | 13/8 | 12 | 3/4 | 15SE | 2\%6 | 24 | 11/8 |
| 703SE | 5 | 63/8 | 1/16 | 9SE | 17/6 | $133 / 2$ | $7 / 1$ | 15ASE | 25\% | 24 | 11/8 |
| 3SE | $11 / 16$ | $63 / 8$ | \%16 | 709SE | $11 / 2$ | 131/2 | 7/6 | 16SE | $23 / 4$ | 27 | 11/4 |
| $704 S E$ | $3 / 4$ | $71 / 4$ | 760 | 10SE | $15 / 8$ | 15 | 7/8 | 16BSE | 21316 | 27 | $11 / 4$ |
| 705SE | $13 / 16$ | $81 / 8$ | 1/2 | 10ASE | $111 / 16$ | 15 | 7 | 17ASE | 3 | 30 | $13 / 8$ |
| 5SE | 7/8 | 81/3 | $1 / 2$ | 11SE | 11/16 | 161/2 | $15 / 6$ | 17SE | $31 / 8$ | 30 | $13 / 3$ |
| 6SE | 15/6 | 91/4 | \% | 11ASE | $17 / 3$ | 161/2 | ${ }^{156}$ | 18ASE | 33/8 | 34 | 1/16 |
|  |  |  |  | 12SE |  |  |  | 18SE | $31 / 2$ | 34 | 17/6 |
|  |  |  |  |  |  |  |  | 19BSE | $33 / 4$ | 38 | 15/8 |
|  |  |  |  |  |  |  |  | 19ASE | 41/4 | 38 | $15 / 8$ |

# INDUSTRIAL SOCKETS FOR POWER OR IMPACT WRENCH APPLICATIONS 


$1 / 4$ " Drive Power Sockets-Single Hex, Regular Length

| Stock No. | Size | Drive End Diameter | Nut End Diameter | Length |
| :---: | :---: | :---: | :---: | :---: |
| P 2106 | 3/16" | $1 / 2^{\prime \prime}$ | 11/32" | $7 /{ }^{\prime \prime}$ |
| P 2108 | $1 / 4^{\prime \prime}$ | $1 / 2^{\prime \prime}$ | 1/6" | 7\%" |
| P 2109 | 2/32" | $1 / 2^{\prime \prime}$ | $31 / 64$ " | 7/" |
| P 21110 | 5/6" | $1 / 2$ " | $1 / 2{ }^{\prime \prime}$ | 7/8" |
| P2112 | $3 / 8$ " | $19 / 32^{\prime \prime}$ | $19 / 3{ }^{19}$ | 7/8' |

$3 / 8^{\prime \prime}$ Drive Power Sockets—Single Hex, Regular Length

| Stock No. | Size | Drive End Diameter | Nut End Diameter | Length |
| :---: | :---: | :---: | :---: | :---: |
| P 2210 | 5/6" | 11/16" | $1 / 2$ " | 15/16" |
| P 2211 | 11/32" | 11/6" | 17/3" | 15/6" |
| P 2212 | 3/8" | 11/6" | 916 | 15/6" |
| P 2214 | 7/6" | $3 / 4 /$ | 5/8" | 15/6" |
| P 2216 | $1 / 2$ " | $3 / 4 /$ | $3 / 4 /$ | 15/6" |
| P 2218 | \%10" | 13/16" | 13/6" | 15/6" |
| P 2219 | 1932" | 27/3" | 27/32" | 15/16" |
| P 2220 | 5/" | $2931{ }^{\prime \prime}$ | $29.3{ }^{\prime \prime}$ | 15/10' |
| P 2222 | 11/6" | $31 / 32^{\prime \prime}$ | $31 / 32^{\prime \prime}$ | $1{ }^{\prime \prime}$ |
| P 2224 | $3 / 4^{\prime \prime}$ | $13 / 64^{\prime \prime}$ | $13 / 64$ " | $1 "$ |


$3 / 8^{\prime \prime}$ Drive Power Sockets-Single Hex, Deep Length

| Stock No. | Size | Drive End Diameter | Nut End Diameter | Length |
| :---: | :---: | :---: | :---: | :---: |
| PL 2212 | 3/8" | 11/18" | $9 / 16$ | 11/2" |
| PL 2214 | 716 | 3/4" | 5/8" | 11/2" |
| PL 2216 | 1/2" | $3 / 4$ " | $3 / 4$ " | 11/2" |
| PL 2218 | 916" | 13/18" | $13 / 16$ | 11/2" |
| PL 2220 | 5/8" | 29\%3" | 2933 " | $11 / 2^{\prime \prime}$ |


$1 / 2^{\prime \prime}$ Drive Power Sockets—Single Hex, Regular Length

| Stock No. | Size | Drive End Diameter | Nut End Diameter | Length |
| :---: | :---: | :---: | :---: | :---: |
| P 2406 | 3/8" | 29/32" | 5/8' | $11 / 2$ " |
| P 2407 | 7/6" | $29 / 3{ }^{\prime \prime}$ | $11 / 10$ | $11 / 2^{\prime \prime}$ |
| P 2408 | $1 / 2^{\prime \prime}$ | $1516^{\prime \prime}$ | $25 / 3{ }^{\prime \prime}$ | 11/2" |
| P 2409 | \%/8' | $1516{ }^{11}$ | 7/8' | $11 / 2$ " |
| P 2419 | 1932" | $31 / 32$ | $29.3{ }^{\prime \prime}$ | 11/2" |
| P 2410 | 5/8" | $1^{\prime \prime}{ }^{\prime 2}$ | $31 / 32^{\prime \prime}$ | 11/2" |
| P 2411 | 1110" | $1 \mathrm{~Kb}_{6 \prime \prime}$ | 116. | 11/2" |
| P 2412 | $3 / 4$ " | $11 / 8^{\prime \prime}$ | $11 / 8{ }^{\prime \prime}$ | $11 / 2^{\prime \prime}$ |
| P 2413 | 13/10" | $11 / 4$ " | $11 / 4{ }^{\prime \prime}$ | $11 / 2^{\prime \prime}$ |
| P 2414 | 7/8" | $15 /{ }^{\text {\% }}$ " | $15 / 10$ | $11 / 2{ }^{\prime \prime}$ |
| P 2415 | 1510" | $13 / 8{ }^{\prime \prime}$ | $13 /{ }^{\prime \prime}$ | 13/4" |
| P 2432 | 1 1' | $17 / 6$ | $17 / 10$ | $13 / 4{ }^{\prime \prime}$ |
| P 2433 | 1 16" | 19 \%' | $19 \% 10$ | $2^{\prime \prime}$ |
| P 2434 | $11 /{ }^{\prime \prime}$ | $15 / 8^{\prime \prime}$ | $15 / 8{ }^{\prime \prime}$ | 2" |
| P 2435 | $13{ }^{\prime \prime}$ | $122 / 32^{\prime \prime}$ | $123 / 3{ }^{\prime \prime}$ | 2" |
| P 2436 | $11 / 4{ }^{\prime \prime}$ | 125/32" | 125/32" | 2" |

# Industrial Sockets FOR POWER OR IMPACT WRENCH APPLICATIONS 

$1 / 2^{\prime \prime}$ Drive Power Sockets-Single Hex, Deep Length

| Stock No. | Size | Drive End Diameter | Nut End Diameter | Length |
| :---: | :---: | :---: | :---: | :---: |
| PL 2406 | 3/8" | $29 / 32$ | 5/8" | 31/4" |
| PL 2407 | 7/16 | 29/32" | $11 / 16^{\prime \prime}$ | 31/4" |
| PL 2408 | $1 / 2$ " | 15/6" | $25 / 32^{\prime \prime}$ | $31 / 4$ " |
| PL 2409 | \%" | 15/16" | $7 / 8$ | 31/4" |
| PL 2410 | 5\%" | $1 "$ | 61/64" | 31/4" |
| PL 2411 | 11/16" | $11 / 6^{\prime \prime}$ | $11 / 1{ }^{\prime \prime}$ | $31 / 4 "$ |
| PL 2412 | $3 / 4{ }^{\prime \prime}$ | $11 / 8$ | $11 / 8{ }^{\prime \prime}$ | $31 / 4$ " |
| PL 2413 | 13/16" | $17 / 32$ | $17 / 32^{\prime \prime}$ | $31 / 4{ }^{\prime \prime}$ |
| PL 2414 | $7{ }^{7 \prime \prime}$ | $15 / 6{ }^{\prime \prime}$ | $15 / 1{ }^{\prime \prime}$ | $31 / 4 "$ |
| PL 2415 | 15/16" | $13 / 8$ | $13 / 8$ | $31 / 2^{\prime \prime}$ |
| PL 2432 | $1 "$ | $17 / 1{ }^{\prime \prime}$ | $17 / 1{ }^{\prime \prime}$ | 31/2" |
| PL 2433 | $11 / 16^{\prime \prime}$ | 1 \%6" | 1 \%/1" | $31 / 2^{\prime \prime}$ |
| PL 2434 | $11 / 8$ | $15 / 8$ | $15 / 8^{\prime \prime}$ | 31/2" |

$1 / 2^{\prime \prime}$ Drive Power Sockets - Double Square, Regular Length


| Stock No. | Size | Drive End Diometer | Nut End Diometer | Length |
| :---: | :---: | :---: | :---: | :---: |
| P 4-812 | $3 / 8$ ", | 29\%" ${ }^{12}$ | 3/4" | 11/2" |
| P 4-814 | 7/16" | 1516" | 1316" | 11/2" |
| P 4.816 | $12^{\prime \prime}$ | $1{ }^{\prime \prime}$ | $29 / 32$ | 11/2" |
| P 4.818 | \%/1" | $11 / 1{ }^{\prime \prime}$ | $1 "$ | 11/2" |
| P 4.820 | 5/8" | $15 / 3{ }^{\prime \prime}$ | 15/32" | 11/2" |
| P 4-822 | $11 / 16$ | 1732,1 | $17 / 3{ }^{\prime \prime}$ | 11/2"' |
| P 4.824 | 3/4" ${ }^{1 / 1}$ | 11132" | 11132 | $11 / 2{ }^{\prime \prime \prime}$ |
| P $4-826$ | $134_{10, "}^{10,}$ | $17 / 1{ }^{\prime \prime}$ | $17 / 16{ }^{\prime \prime}$ | 15/8" |
| P 4 4-828 | $\begin{gathered} 70^{\prime \prime \prime} \\ 158^{\prime} \end{gathered}$ | 117/31" | 1173"' | 15/"'" |
| P 4-830 P 4.832 | $1^{15 / 10^{\prime \prime}}$ | ${ }^{121 / 3 / 3}{ }^{2 \prime 3}$ " | $121 / 3{ }^{\prime \prime}$ $123 / 32^{\prime \prime}$ | $13 / 4{ }^{\prime \prime \prime}$ |


$5 / 8^{\prime \prime}$ Square Drive Sockets - Single Hex, Regular Length

| Stock No. | Size | Drive End Diometer | Nut End Diometer | Length |
| :---: | :---: | :---: | :---: | :---: |
| P 2509 | 916" | 1516" |  |  |
| P 2519 P 2510 |  | 1516" | ${ }^{31 / 32^{\prime \prime}}$ | $11 /{ }^{11 / \prime \prime}$ |
| P 2510 P 2511 | 5/8" | 1516", | 1 1/"' | 11/2"' |
| P 2512 | 3/46 ${ }^{1 / 1}$ | 156\% | $17 / 3{ }^{\prime \prime}$ | $11 / 2$ |
| P 2513 | 13/10" | 156" | $1784{ }^{17}$ | $11 /{ }^{\prime \prime}$ |
| P 2514 | 7\%" | 13\%"' | $13 / 8$ " | 15\%"' |
| P 2515 | 15/16" | 176" | 176 | $13 / 4{ }^{\prime \prime}$ |
| P 2532 | $1 "$ | 11/2" | $11 / 2{ }^{\prime \prime}$ | $13 / 4{ }^{\prime \prime}$ |
| P 2534 | 1\%", | 15\%", | $15 /{ }^{\prime \prime \prime}$ | ${ }^{\prime \prime \prime}$ |
| P 2536 | 11/8", |  | $111 / 1{ }^{16}$ | $2^{\prime \prime}$ |
| P 2538 | 13/1" | 11/2", | $13 / 4 \prime \prime \prime$ | $2^{\prime \prime}$ |
| P 2540 | 11/4"' | 11/2"' | $1316{ }^{\prime \prime}$ |  |
| P 2542 | 1516", | 11/2"' | $115 / 1{ }^{1 / 1}$ |  |
| P 2544 | $13 / 8$ | 11/2", | $2^{\prime \prime}{ }^{\prime \prime \prime}$ | 21/"', |
| P 2546 P 2548 | 176" | 11/2" | 2 $21 /{ }^{1 / \prime \prime \prime}$ | $21 / 4 "$ $23 /{ }^{\prime \prime}$ |
| P 2548 | $11 / 2$ | 1916 |  |  |



3/4" Drive Impact Sockets - Single Hex, Regular Length

| Stock No. | Size | Drive End Diometer | Nut End Diometer | Length |
| :---: | :---: | :---: | :---: | :---: |
| P 2609 | \%/16" | 15/8" | $1 "$ | $13 / 4{ }^{\prime \prime}$ |
| P 2610 | 5/" | 15/8" | $13 / 32^{\prime \prime}$ | 13/4" |
| P 2611 | $11 / 16$ | 15/8" | 15/32" | $13 / 4$ " |
| P 2612 | $34^{\prime \prime}$ | 15/8" | 1/4"' | $13 / 4{ }^{\prime \prime}$ |
| P 2613 | $1316{ }^{\prime \prime}$ | $15 /{ }^{\prime \prime}$ | 13 " ${ }^{\prime \prime}$ | 17/"' |
| P 2614 | 7/8", | $15 /{ }^{\prime \prime \prime}$ | 11/2" | $17{ }^{\prime \prime \prime}$ |
| P 2615 | ${ }^{15} / 16^{\prime \prime}$ | $15 /{ }^{\prime \prime \prime}$ | 1916" | $17{ }^{\prime \prime \prime}$ |
| P 2632 | $1^{\prime \prime}$ | $15 \% \prime \prime$ | $15 / 8$ | 2 2" |
| P 2634 | 11/10" | 15/"' | $111 / 16^{\prime \prime}$ | 2 " |
| P 2636 | 11/8" | 15\%"' | 113/10" | 21/8" |
| P 2638 | $1316{ }^{\prime \prime}$ | $15 /{ }^{\prime \prime \prime}$ | $17 /{ }^{\prime \prime \prime}$ | 21/8" |
| P 2640 | 11/4" | $13 / 4$ " | $2^{\prime \prime}$ | 21/8"' |
| P 2642 | $15 / 16^{\prime \prime}$ | $13 / 4{ }^{\prime \prime}$ | $21 /{ }^{\prime \prime \prime}$ | 21/4"' |
| P 2644 | $13 / 8{ }^{\prime \prime}$ | $13 / 4{ }^{\prime \prime}$ | 21/8", | 21/4"' |
| P 2646 | 17/16" | $134^{\prime \prime}$ | 21/4" | $21 / 4 \prime \prime$ |
| P 2648 | 11/2" | 13/4" | 21/4" | 21/4 |

$3 / 4^{\prime \prime}$ Drive Impact SocketSingle Hex, Deep Length


| Stock No. | Size | Drive End <br> Diometer | Nut End <br> Diometer | Length |
| :---: | :---: | :---: | :---: | :---: |
| PL 2612 | $3 / 4$ | $15 / 8$ | $11 / 4$ | $31 / 4$ |
| PL 2613 | $13 / 16$ | $15 / 8$ | $13 / 8$ | $31 / 4$ |
| PL 2614 | $7 / 6$ | $15 / 8$ | $11 / 2$ | $31 / 2$ |
| PL 2615 | $15 / 16$ | $15 / 8$ | 1916 | $31 / 2$ |
| PL 2632 | 1 | 158 | $15 / 8$ | $31 / 2$ |
| PL 2634 | $11 / 6$ | $15 / 8$ | $111 / 16$ | $31 / 2$ |
| PL 2636 | $11 / 8$ | $15 / 8$ | $113 / 16$ | $31 / 2$ |
| PL 2640 | $11 / 4$ | $13 / 4$ | 21 | $31 / 2$ |
| PL 2648 | $11 / 2$ | $13 / 4$ | $21 / 4$ | $31 / 2$ |



## Retainer Pins and " $O$ " Rings

Since 1912

| Power Locking Pins |  | Power Locking Rings |  |
| :--- | :---: | :---: | :---: |
| No. | Drive | No. | Drive |
| PLP 34 | $34^{\prime \prime}$ | PLR 34 | $3 / /^{\prime \prime}$ |
| PLP 100 | $\mathbf{1}^{\prime \prime}$ | PLR 100 | $11^{\prime \prime}$ |

## 1 Inch Drive Impact Sockets Single Hexagon, Deep Length, Industrial Black Finish



| No. | Size | Drive End Diameter | Nut End Diameter | Length Overall |
| :---: | :---: | :---: | :---: | :---: |
| 17-628 | 7/8 | 2.003 | 1.440 | 3 |
| 17-630 | 15/16 | 2.003 | 1.596 | 3 |
| 17-632 | , | 2.003 | 1.753 | 3 |
| 17-634 | $11 / 16$ | 2.003 | 1.753 | 3 |
| 17-636 | $11 / 8$ | 2.128 | 1.815 | 3 |
| 17-638 | $13 / 16$ | 2.128 | 1.878 | 3 |
| 17-640 | $11 / 4$ | 2.128 | 2.003 | 3 |
| 17-642 | 1516 | 2.128 | 2.065 | $31 / 2$ |
| 17.644 | $13 / 8$ | 2.253 | 2.128 | $31 / 2$ |
| 17.646 | 1710 | 2.253 | 2.253 | $31 / 2$ |
| 17-648 | $11 / 2$ | 2.253 | 2.315 | $31 / 2$ |
| 17-650 | 1916 | 2.253 | 2.378 | $31 / 2$ |
| 17.652 | 15/8 | 2.253 | 2.440 | $31 / 2$ |
| $17-654$ | $111 / 16$ | 2.253 | 2.565 | 35/8 |
| 17-656 | $13 / 4$ | 2.253 | 2.625 | 35/8 |
| 17-658 | 113/16 | 2.253 | 2.753 | 35/8 |
| 17-660 | 178 | 2.253 | 2.753 | $37 / 8$ |
| 17-662 | 115/6 | 2.253 | 2.878 | 378 |
| 17-664 | 2 | 2.253 | 3.003 | 378 |
| 17-666 | $21 / 16$ | 2.253 | 3.003 | 41/8 |
| 17-668 | $21 / 8$ | 2.378 | 3.128 | 41/8 |
| 17-670 | 2316 | 2.378 | 3.253 | 41/8 |
| 17-672 | $21 / 4$ | 2.378 | 3.253 | 43/8 |
| 17-674 | 25/16 | 2.378 | 3.378 | 43/8 |
| 17-676 | $23 / 8$ | 2.378 | 3.503 | $43 / 8$ |

1 Inch Drive Impact Socket - Regular Length

| No. | Size | Drive End <br> Diameter | Nut End <br> Diameter | Length <br> Overall |
| :---: | :---: | :---: | :---: | :---: |
| P 5426S | $13_{10^{\prime \prime}}{ }^{\prime \prime}$ sq. | $21 / 8^{\prime \prime}$ | $11 / 8^{\prime \prime}$ | $21 / 4^{\prime \prime}$ |

## $11 / 2$ Inch Drive - Single Hexagon, Regular Length, Industrial Black Finish

| Stock No. | Size | Drive End <br> Diameter | Nut End <br> Diameter | Length |
| :---: | :---: | :---: | :---: | :---: |$|$

# Regular and Hex. Drive Power Extensions ADAPTORS AND UNIVERSAL JOINTS 



1/4" Square Drive

| No. | Length | Square <br> Male | Square <br> Female | No. | Length | Hex. <br> Male | Square <br> Male |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| PO-102A | $2^{\prime \prime}$ | $1 / 4^{\prime \prime}$ | $14^{\prime \prime}$ | PO-02A | $2^{\prime \prime}$ | $1^{\prime \prime \prime}$ | $14^{\prime \prime \prime}$ |
| PO-106A | $6^{\prime \prime}$ | $1 / 4^{\prime \prime}$ | $1 / 4^{\prime \prime}$ | PO-04A | $4^{\prime \prime}$ | $1 / 4^{\prime \prime}$ | $1 / 4^{\prime \prime}$ |

$3 / 8^{\prime \prime}$ Square Drive

| $\begin{aligned} & \text { P2-103A } \\ & \text { P2-106A } \end{aligned}$ | $\begin{aligned} & 3^{\prime \prime} \\ & 6^{\prime \prime} \end{aligned}$ | $\begin{aligned} & 3 / 8^{\prime \prime} \\ & 3 / 8^{\prime \prime} \end{aligned}$ | $\begin{aligned} & 3 /{ }^{\prime \prime} \\ & 3 / 8^{\prime \prime} \end{aligned}$ | $\begin{aligned} & \text { P2-33A } \\ & \text { P2-35A } \end{aligned}$ | $\begin{array}{r} 23 / 4^{\prime \prime} \\ 5^{\prime \prime} \end{array}$ | $\begin{aligned} & 7 /{ }^{\prime \prime}{ }^{\prime \prime} \\ & T_{10} \end{aligned}$ | $\begin{aligned} & 3 / 8^{\prime \prime} \\ & 3 / 8^{\prime \prime} \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $1 / 2^{\prime \prime}$ Square Drive |  |  |  |  |  |  |  |
| $\begin{aligned} & \text { P4-105A } \\ & \text { P4-110A } \end{aligned}$ | $\begin{gathered} 5^{\prime \prime} \\ 10^{\prime \prime} \end{gathered}$ | $\begin{aligned} & 1 / 2 " 1 \\ & 1 / 2^{\prime \prime} \end{aligned}$ | $\begin{aligned} & 1 / 2^{\prime \prime} \\ & 1 / 2^{\prime \prime} \end{aligned}$ | $\begin{aligned} & \text { P4-33A } \\ & \text { P4-35A } \\ & \text { P4-53A } \\ & \text { P4-5A } \end{aligned}$ | $\begin{array}{r} 23 / 4^{\prime \prime} \\ 5^{\prime \prime} \\ 3^{\prime \prime} \\ 5^{\prime \prime} \end{array}$ | $7 / 16^{\prime \prime}$ $716^{\prime \prime}$ $5 / 81$ $5 / 818$ | $\begin{aligned} & 1 / 2^{\prime \prime} \\ & 1 / 2^{\prime \prime} \\ & 1 / 2^{\prime \prime} \\ & 1 / 2^{\prime \prime} \end{aligned}$ |

$5 / 8^{\prime \prime}$ Square Drive

| $\begin{aligned} & \text { P5-106A } \\ & \text { P5-10A } \end{aligned}$ | $\begin{gathered} 6^{\prime \prime} \\ 10^{\prime \prime} \end{gathered}$ | $\begin{aligned} & 5 / 8^{\prime \prime} \\ & 5 / 8^{\prime \prime} \end{aligned}$ | $\begin{aligned} & 5 / " 1 "_{\prime \prime} \\ & 5 /{ }^{\prime \prime} \end{aligned}$ | P5-53A | $3 \prime$ | 5/8' | 5/8' |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | P5-55A | 5" | 5/8' | 5/8' |
|  |  |  |  | P5-58A | 8" | 5/8' | 5/8" |
|  |  |  |  | P5-63A | 3 " | $5 / 81$ | $3 / 4{ }^{\prime \prime}$ |

$3 / 4^{\prime \prime}$ Square Drive

| No. | Length | Square <br> Male | Square <br> Female |
| :---: | :---: | :---: | :---: |
| P6-107 | $7^{\prime \prime}$ | $3 / 4^{\prime \prime}$ | $\frac{3 / 4^{\prime \prime}}{}$ |
| P6-110 | $10^{\prime \prime}$ | $3 / 4^{\prime \prime}$ | $3 / 4^{\prime \prime}$ |
| P6-113 | $13^{\prime \prime}$ | $3 / 4^{\prime \prime}$ | $3 / 4^{\prime \prime}$ |

1" Square Drive

| P5406 | $71 / 2^{\prime \prime}$ | $1^{\prime \prime}$ | $1^{\prime \prime}$ |
| :---: | :---: | :---: | :---: |

## Adaptors

| Number | Male Square | Female Square |
| :---: | :---: | :---: |
| PA2-4A | $1 / 2^{\prime \prime}$ | $3 / 8^{\prime \prime}$ |
| PA4-2A | $3 / 8^{\prime \prime}$ | $1 / 2^{\prime \prime}$ |
| PA5-4A | $1 / 2^{\prime \prime}$ | $58^{\prime \prime}$ |
| PA4-5A | $5 / 8^{\prime \prime}$ | $1 / 2^{\prime \prime}$ |
| PA6-7 | $1^{\prime \prime}$ | $1 / 4^{\prime \prime}$ |
| PA7-6 | $3 / 4^{\prime \prime}$ | $1^{\prime \prime}$ |

Universal Joints


P4.140A $1 / 2^{\prime \prime}$ drive
 P6-140A $3 / 4^{\prime \prime}$ drive

## Wrenches and Hack Saws

Gray Tool Adjustable Wrenches


The Gray Tool lightweight Adjustable Wrench is forged from alloy steel. It is thinner and lighter, yet much stronger than the standard pattern.

| No. | Size | Max. Opening | No. | Size | Max. Opening |
| :---: | :---: | :---: | :---: | :---: | :---: |
| BW 4 | 4" | $1 / 2^{\prime \prime}$ | BW 12 | 12" | 1516" |
| BW 6 | $6^{\prime \prime}$ | $3 / 4{ }^{\prime \prime}$ | BW 15 | 15" | 1116 |
| BW 8 | $8^{\prime \prime}$ | 130" | BW 18 | 18" | 2Kı" |
| BW 10 | 10" | 11/8" | AC 124 | $24^{\prime \prime}$ | 27/6" |

Pipe Wrenches Straight Pattern


These Pipe Wrenches have long been famous for their remarkable durability under hard usage. They are drop forged from specially selected steel and carefully heat treated. The unbreakable housing and free-moving nut are features that will be appreciated by ail good mechanics.

| No. | Size | Grips Pipe |
| :---: | :---: | :---: |
| NSP 6 | $6^{\prime \prime}$ | $1 / 8^{\prime \prime}$ to $3 / 4^{\prime \prime}$ |
| NSP 8 | $8^{\prime \prime}$ | $1 / 8^{\prime \prime}$ to $1^{\prime \prime}$ |
| NSP 10 | $10^{\prime \prime}$ | $1 / 8^{\prime \prime}$ to $11 / 2^{\prime \prime}$ |
| NSP 14 | $14^{\prime \prime}$ | $1 / 4^{\prime \prime}$ to $2^{\prime \prime}$ |
| NSP 18 | $18^{\prime \prime}$ | $1 / 4^{\prime \prime}$ to $21 / 2^{\prime \prime}$ |
| NSP 24 | $24^{\prime \prime}$ | $1 / 4^{\prime \prime}$ to $3^{\prime \prime}$ |
| NSP 36 | $36^{\prime \prime}$ | $1 / 4$ to $5^{\prime \prime}$ |
| NSP 48 | $48^{\prime \prime}$ | $1^{\prime \prime}$ to $6^{\prime \prime}$ |



No. 2682 Tubular Adjustable Hack Saw Frame


A strong, well-built tubular hack saw, with comfortable steel handle. Adjustable from 8"' to 12". Full nickel finish. Complete with blade. Individually packed.

High Speed Steel Hack Saw Blades

| No. | Width | Length | Gauge | Teeth <br> per inch |
| :---: | :---: | :---: | :---: | :---: |
| HS 1018 | $1 / 2^{\prime \prime}$ | $10^{\prime \prime}$ | .025 | 18 |
| HS 1024 | $12^{\prime \prime}$ | $10^{\prime \prime}$ | .025 | 24 |
| HS 1032 | $1 / 2^{\prime \prime}$ | $10^{\prime \prime}$ | .025 | 32 |
| HS 1218 | $1 / 2^{\prime \prime}$ | $12^{\prime \prime}$ | .025 | 18 |
| HS 1224 | $1 / 2^{\prime \prime}$ | $12^{\prime \prime}$ | .025 | 24 |
| HS 1232 | $1 / 2^{\prime \prime}$ | $12^{\prime \prime}$ | .025 | 32 |

Tungsten Alloy Steel Hack Saw Blades

| No. | Width | Length | Gauge | Teeth <br> per inch |
| :---: | :---: | :---: | :---: | :---: |
| TA 1018 | $1 / 2^{\prime \prime}$ | $10^{\prime \prime}$ | .025 | 18 |
| TA 1024 | $1 / 2^{\prime \prime}$ | $10^{\prime \prime}$ | .025 | 24 |
| TA 1032 | $1 / 2^{\prime \prime}$ | $10^{\prime \prime}$ | .025 | 32 |
| TA 1218 | $1 / 2^{\prime \prime}$ | $12^{\prime \prime}$ | .025 | 18 |
| TA 1224 | $1 / 2^{\prime \prime}$ | $12^{\prime \prime}$ | .025 | 24 |
| TA 1232 | $1 / 2^{\prime \prime}$ | $12^{\prime \prime}$ | .025 | 32 |

All hack saw blades available only in packages of 10 .
No. 2630 Adjustable Tension Hack Saw Frame

With $6^{\prime \prime} \times 1 / 4^{\prime \prime}$ hack saw blade. Fits in close places. Handy for electricians, plumbers, and mechanics. Indispensable for home mechanics. Extra blades No. 2630 B available.

## WR 19 Hack Saw Display Rack

Contains 160 blades (16 packages of 10 ) as follows:


2 packs - HS 1018
2 packs - HS 1218
2 packs - HS 1024
2 packs - HS 1224
2 packs - TA 1018
2 packs - TA 1218
2 packs - TA 1024
2 packs - TA 1224

## Allen Wrenches \& Hex Key Sets

## W 11 LR Allen Wrench Set



W 11 LR Set of 11 Head Screw Wrenches W 1 to W 12 inclusive in leatherette roll. No. 2011.

W 15 LR Allen Wrench Set


W 15 LR Set contains one each of Series W 1 to $\mathbf{W} 24$ in leatherette roll. No. 2013.

MM 10 LR Metric Allen Wrench Set
10-Piece Set From 1.27 to 10 MM


| No. | Hex. Across Flats | Long Arm Length |
| :---: | :---: | :---: |
| MM-1.27 | 1.27 MM | $13 / 4 \prime$ |
| MM-1 $1 / 2$ | 1.5 MM | $2^{\prime \prime}$ |
| MM-2 | 2.0 MM | 23/16 ${ }^{\prime \prime}$ |
| MM-21/2 | 2.5 MM | 23/8" |
| MM-3 | 3 MM | 2\%16" |
| MM-4 | 4 MM | $2 "$ |
| MM-5 | 5 MM | 27/8' |
| MM-6 | 6 MM | 3716" |
| MM-8 | 8 MM | $4^{\prime \prime}$ |
| MM-10 | 10 MM | 45/16 ${ }^{1 /}$ |

Packed in roll No. 2034.
No. KM-7 - Metric -

## $+10 / 1$

Contains 7 metric sizes $(1.27 \mathrm{~mm}, 1.5 \mathrm{~mm}, 2.0 \mathrm{~mm}, 2.5 \mathrm{~mm}$, $3 \mathrm{~mm}, 4 \mathrm{~mm}, 5 \mathrm{~mm}$ )

## Short Allen Head Screw Wrenches

These wrenches are practically indispensable in modern shops. All late model motors are using hollow head cap screws and set screws on which these wrenches must be used.

| No. | Hex. <br> Across Flats | Long <br> Arm Length | No. | Hex. <br> Across Flats | Long <br> Arm <br> Length |
| :---: | :---: | :---: | :---: | :---: | :---: |
| W 1 | . 050 | 13/4" | W 8 | 1/4" | 31/4" |
| W 2 | 1/10" | 13/4" | W 10 | 5/16" | 33/4" |
| W $21 / 2$ | 5/64" | 17/8" | W 12 | $3 / 8{ }^{\prime \prime}$ | 41/4" |
| W 3 | $3 / 32^{\prime \prime}$ | 2" | W 16 | 1/2" | 51/4" |
| W 31/2 | 7/64' | 2" | W 18 | $9 / 16$ | 53/4" |
| W 4 | 1/8" | 21/4" | W 20 | 5/8" | 61/4" |
| W 41/2 | \%/8" | 21/4" | W 24 | $3 / 4$ " | 71/2" |
| W 5 | 5/32 | 21/2" | W 26 | 7/8" | 81/4" |
| W 6 | 3/10" | 23/4" | W 28 | $1 "$ | 91/4' |
| W 7 | $7 / 32$ | $3 \prime$ |  |  |  |

## Long Allen Head Screw Wrenches



| No. | Hex. <br> Across Flats | Long Arm Length |
| :---: | :---: | :---: |
| W IL | $5 / 64$ " | 33\%" |
| W2L | 3/32" | 33/8" |
| W3L | 1/8" | $33 / 4$ " |
| W4L | 5/32" | 41/8" |
| W5 L | 3/10" | 41/2"' |
| W6L | 7/32" | 47/8" |
| W7L | $1 / 4$ " | 51/4" |
| W8L | 5/6" | 6 " |
| W9L | 3/8" | $63 / 4$ " |

W 9 LR Set contains one each of Series $W 1 \mathbf{L}$ to W 9 L in strong plastic roll. No. 2036.

## Pocket Hex Key Sets

Wrenches are made of the finest quality alloy steel. They may be used independently in any position and then store neatly away.
No. KW-7
Contains 7 sizes $.050^{\prime \prime}$, 1/16", 5/64", $3 / 32^{\prime \prime}$, $1 / 8^{\prime \prime}$, $5 / 32^{\prime \prime}$, $3 / 16^{\prime \prime}$


No. KW-6L
Heavy Duty Set. Contains sizes ( $1 / 8^{\prime \prime}, 5 / 32^{\prime \prime}, 3 / 16^{\prime \prime}, 7 / 32^{\prime \prime}, 1 / 44^{\prime \prime}, 5 / 16^{\prime \prime}$ )


## Feeler Gauges

These Gauges are Marked in Inches and Millimeters


FG-1
STANDARD FEELER GAUGE
Contains ten $35 / /_{6}^{\prime \prime} \times 1 /{ }^{\prime \prime}$ blades of the following thicknesses: .002, .003 , $.004, .005, .006, .007, .008, .010, .012$ and .015. Packed 6 to a box; weight $1 / 2 \mathrm{lb}$.


FG-2

## UNIVERSAL MASTER GAUGE

Contains twenty-five $351_{10}^{\prime \prime} \times 1 / 2^{\prime \prime}$ blades of the following thicknesses: $.0015, .002, .003, .004, .005, .006, .007$, $.008, .009, .010, .011, .012, .013, .014$, $.015, .016, .018, .020, .024, .025, .028$, $.030, .032$ and .035 . Packed 6 to a box; weight $11 / 4$ lbs.


FG-12
FEELER GAUGE
Contains fifteen $35 / 6^{\prime \prime} \times 1 / 2^{\prime \prime}$ blades of the following thicknesses: . 002 , $.003, .004, .005, .006, .007, .008, .010$, $.011, .012, .013, .014, .015, .020$ and .025 . Packed 6 to a box; weight $3 / 4 \mathrm{lb}$.


FG-7A SPARK PLUG WIRE GAUGE

Contains one electrode bender and eight wire gauges of the following thicknesses: .022, .025, .028, . 030 , $.032, .035, .038$ and .040 . Packed 6 to a box; weight $71 / 2 \mathrm{ox}$.


FG-6-A IGNITION GAUGE
Contains twelve $13 / /^{\prime \prime} \times 1 / 4^{\prime \prime}$ blades of the following thicknesses: .011, $.012, .013, .014, .015, .016, .017, .018$, $.019, .020, .022$ and .025 . Packed 6 to a box; weight 6 oz .


FG-14-A 15-blade

## GO-NO-GO GAUGE

Contains fifteen $35 / 6^{\prime \prime} \times 1 / 2 \prime$ stepground blades of following thicknesses: .006-.008, . $007-.009, \quad .008$ $.010, .009-.011, .010-.012, \quad .011-.013$, $.012-.014, .013-.015, .014-.016, .015-$ $.017, .016-.018, .017-.019, .018-.020$, $.019-.021, .020-.022$. Packed 6 to a box; weight 1 lb .


FG-5-A COMBINATION GAUGE

Contains ten $3^{\prime \prime} \times 1 / 2^{\prime \prime}$ blades on one end, of the following thicknesses: $.002, .003, .004, .005, .006, .007, .008$, $.010, .013, .015$; and twelve $13 / 4^{\prime \prime} \mathbf{x}$ $1 / 4$ " blades on the other end, of the following thicknesses: . $011, .012$, $.013, .014, .015, .016, .017, .018, .019$, $.020, .022$ and .025 . Packed 6 to a box; weight $3 / 4 \mathrm{lb}$.


FG-15-A MASTER IGNITION GAUGE
Services Domestic and Foreign Cars
Contains sixteen $13 / 4^{\prime \prime}$ x $1 / 44^{\prime \prime}$ blades of the following thicknesses: $.011, .012, .013, .014, .015, .016, .017$, $.018, .019, .020, .022, .024, .025, .028$, .030, .032. Packed 6 to a box; weight 6 oz.

## WR 20 Feeler Gauge Stock



This display rack of feeler gauges contains 162 gauges from .001 to .025 . Blades are packed 6 to a pack only.

## Feeler Gauges



FG-13

## MASTER GO-NO-GO GAUGE

Contains twenty-two $35 / 1^{\prime \prime} \times 1 / 2^{\prime \prime}$ step-ground blades of the following thicknesses: .004-.006, .005-.007, $.006-.008, .007-.009, .008-.010, .009-$ $.011, .010-.012, \quad .011-.013, .012-.014$, $.013-.015, .014-.016, \quad .015-.017, \quad .016-$ $.018, .017-.019, .018-.020$, . $019-.021$, $.020-.022, .021-.023, \quad .022-.024, \quad .023-$ $.025, .024-.026, .025-.027 . \quad$ Packed 6 to a box; weight 1 lb .7 oz .


FG-3-A
IGNITION GAUGE
Contains thirteen step-ground $33 / 6^{\prime \prime} \times 1 / 2^{\prime \prime}$ Go-No-Go blades of the following thicknesses: . $010-.012$, . $011-$ $.013, .012-.014, .013-.015, .014-.016$, $.015-.017, .016-.018, .017-.019, .018$ $.020, .019-.021, .021-.023, .024-.026$, .025-. 027.

Four $35 / 1^{\prime \prime} \times 1 / 4$ " Ignition Blades: $.015, .016, .020, .025$.

Three $90^{\circ}$ offset wire blades: . 025 , . $028, .035$.

Two straight wire blades: .017, .030 .

One electrode bending tool. Packed 6 to a box; weight 1 lb .6 oz .


## FG-8 <br> BRAKE GAUGE

Contains nine $4^{\prime \prime} \times 1 / 4^{\prime \prime}$ blades in the following thicknesses for checking brake clearances: $.002, .004, .005$, $.006, .007, .008, .010, .012, \quad .015$. Packed 6 to a box; weight 6 oz.

These Gauges are Marked in Inches and Millimeters


## FG-275

## MASTER OFFSET GAUGE

Contains twenty-six $35 / 1^{\prime \prime} \times 1 / 2^{\prime \prime}$ blades with $45^{\circ}$ offset of the following thicknesses: .005, .006, . $007, .008$, $.009, .010, .011, .012, .013, .014$, . 015 , $.016, .017, .018, .019, .020, .021, .022$, $.023, .024, .025, .026, .027, .028, .029$, .030. A required gauge for all mechanics and shops. Packed 6 to a box.


## FG-18

## COMBINATION PLUG AND IGNITION GAUGE

Containing twenty-five units, this gauge offers every type and style of blade required in ignition work.

Eight $90^{\circ}$ offset wire blades: .022, $.025, .028, .030, .032, .035, .038, .040$.

Fifteen Ignition Blades: .012, . 013 , $.014, .015, .016, .017, .018, .019, .020$, .022, .024, .025, .028, .030, .032. One Gapper, one File. Packed 6 to a box.


PISTON GAUGE
Contains eight $9^{\prime \prime} \times 1 / 2^{\prime \prime}$ blades of the following thicknesses: .002, .003 , $.004, .005, .006, .008, .010$ and .015 . Packed 6 to a box; weight 1 lb.


FG-16
COMBINATION O.H.V. GAUGE
Contains seven $35 / 1^{\prime \prime} \times 1 / 2^{\prime \prime}$ blades with $45^{\circ}$ offset of the following thicknesses: . $018, .019, .020, .021, .024$, $.025, .026$ and four straight $35 / 6_{6}^{\prime \prime} \mathrm{x}$ $1 / 2^{\prime \prime}$ in the following thicknesses: $.015, .016, .018$ and .019 . This gauge is useful on all motors. Packed 6 to a box; weight 1 lb .6 oz .


FG-19
THE TURTLE
Designed as a general gauge, it's extremely handy to carry or to hang ready at the bench. Contains seven sizes with gapper $.020, .025, .028, .030$, $.032, .035, .040$. MM $0.50,0.63,0.71$, $0.76,0.81,0.89,1.0$. Packed 6 to a box.

## FEELER GAUGE BLADES

## With $5 / 32^{\prime \prime}$ hole one end

Hardened and Polished Swedish Steel
Av́ailable in all popular sizes from .001 to .040 in standard $35 / 5^{\prime \prime}$ and $12^{\prime \prime}$ lengths by $1 / 2^{\prime \prime}$. wide. These blades can be used in FG-10 and FG-11 Stock Holders thereby enabling them to be used down to the last short piece by trimming off the worn ends. Each blade is permanently marked with its proper size.

These blades can be supplied in the following sizes: .001, .0015, . 002 , $.0025, .003, .004, .005, .006, .007$, .008, .009, .010, .011, .012, .013, .014, $.015, .016, .017, .018, .019, .020, .021$, .022, .023, . $024, .025, .026, .027$, . 028 , $.029, .030, .031, .032, .033, .034, .035$, $.036, .037, .038, .039$ and .040 . When ordering specify length - either $35 / 6_{6}^{\prime \prime}$ or $12^{\prime \prime}$. These blades packed in packages of 6 blades.

## Bushing Drivers • Screw Extractors

## LO 875 A BUSHING REMOVER and REPLACING SET plated



For Passenger Car, Light Truck and Tractor Bushings
These tools are made of a high quality steel especially heat treated for hard use and long life.
A practical bushing remover and inserting set designed to meet the demand of present day equipment.

These Tools Are Guaranteed Against Defects in Workmanship or Materials

Complete Bushing Removing \& Inserting Set, in metal box, consists of the following parts:

| No. | Description | Small Diameter | Large Diameter |
| :---: | :---: | :---: | :---: |
| LO 847 | BushingAdaptor | $3 / 8{ }^{\prime \prime}$ | 7/16" |
| LO 849 |  | 7/16" | $1 / 2{ }^{\prime \prime}$ |
| LO 850 | " | $1 / 2$ " | $9 / 16$ |
| LO 852 | " | 9/16" | 5/8" |
| LO 853A | " | $\left\{394{ }^{\prime \prime}\right.$ | 43/64" |
|  |  | \{ 5/8" | 11/16" ${ }^{\prime \prime}$ |
| LO 854 | " | 5/8" | $3 / 4{ }^{\prime \prime}$ |
| LO 855 | " | 11/6" | 13/16" |
| LO 856 | " | $\left\{47 / 64^{\prime \prime}\right.$ | 55/6" ${ }^{\prime \prime}$ \} |
|  |  | 3/4" | 7/8"' |
| LO 857 | " | 13/16" | 15/16" |
| LO 858 | " | $\left\{55 / 4^{\prime \prime}\right.$ | 63/64 ${ }^{\prime \prime}$ \} |
|  |  | \{78" | $\left.7{ }^{\prime \prime}\right\}$ |
| LO 859 | " | 15/16" | 11/16" |
| LO 860 | " | $1 "$ | 11/8" |
| LO 861 | " | 1116" | 13/10" |
| LO 862 | " | 11/8" | $11 / 4{ }^{\prime \prime}$ |
| LO 862A | " | 1316" | 15/16" |
| LO 863 | " | 11/4" | 13/8" |
| LO 864 No. 1 Driver (Small) |  |  |  |
| LO 865 No. 2 Driver (Medium) |  |  |  |
| 1 L 866 No. 3 Driver (Large) |  |  |  |
| LO 867 Nut for No. 1 \& 2 Driver |  |  |  |
| LO868 N | ut for No. 3 Driv |  |  |

## SCREW EXTRACTORS

Easy to use! Simply drill hole, then drive in extractor and turn. Out comes broken object. This 5 -piece set contains the most popular size extractors. Made of rugged alloy steel, the sharp edges are designed to bite positively, without wedging or binding. Set comes complete with durable, handy vinyl plastic pouch.


| No. | Fits Screw | Use Drill | O.D. | Length | Depth |
| :---: | :---: | :---: | :---: | :---: | :---: |
| SE 1 | 1/4" | 1/8" | . 139 | 25\%" | $1 "$ |
| SE 2 | 5/16" | 3/16 ${ }^{\prime \prime}$ | . 205 | 23/4" | $1 "$ |
| SE 3 | 3/8" | 1/4" | . 272 | 31\%" | $1 "$ |
| SE 4 | 7/16" | 5/10" | . 338 | 35\%" | 1"' |
| SE 5 | $1 / 2$ " $-1 / 6{ }^{\prime \prime}$ | 11/32" | . 374 | $33 / 4{ }^{\prime \prime}$ | $1 "$ |

No. SE50 Screw Extractor Set
Easily removes studs, screws, pipe and alemite fittings


No. S35P. Five-piece Screw Extractor -
Screw Extractors are packed in handy pouches.
For removing broken screws, bolts, studs and pipes that cannot be taken out any other way.


## Tube Cutting and Flaring Tools

No. RF 46 Flaring Tool


A simple, fast, efficient tool for quickly and accurately flaring copper and other tubing having $1 / 10^{\prime \prime}, 1 / 4^{\prime \prime}, 5 / 16^{\prime \prime}, 3 / 8^{\prime \prime}$, $7 / 16^{\prime \prime}, 1 / 2^{\prime \prime}$ and $5 / 8^{\prime \prime}$ O.D. Oversize wing nuts securely lock tubing in holes threaded to prevent slipping. Open side flaring yoke attaches instantly to flaring bars. The flaring head is of the self-centering type, assuring easy, perfect flaring. A fine tool, reasonably priced for working in close quarters on gas lines, etc. Net weight 2 lbs.


A compact, efficient tube cutter for all tubing from $1 / 8 "$ to $1^{\prime \prime}$ O.D. Body is an alloy die casting. Wafertapered, hardened cutting blade makes cutting easy and with practically no burr. The slide-lock safety reamer opens instantly and protects the hands when not in use. It may be safely carried in your pocket. Net weight $1 / 2 \mathrm{lb}$.


The primary use of this tool is in refrigeration service work and is used to pinch off refrigeration tubing as well as restoring the tubing to correct shape and diameter after the service work has been completed.

The outstanding feature of this handy tool is the quick-operating freeing and locking action. This tool is made for use with $1 / 4,5 / 16,3 / 8$ and $1 / 2$ inch tubing.

No. RF 163 Double Flaring Tool


This Flaring Tool is designed and built to withstand the pressure that is necessary to double flare soft steel tubing (. 040 wall thickness). The hardened Bar Assembly with five threaded dies ( $3 / 6,1 / 4,5 / 6,3 / 8$ and $1 / 2$ ) also single flares soft copper, aluminum or brass tubings 45 degrees. The Yoke Compressor is made of a heat-treated steel forging.

Dies for RF 163

| Size | Number |
| :---: | :---: |
| $3 / 1^{\prime \prime}$ | RF $163-1$ |
| $1 / 4^{\prime \prime}$ | RF $163-2$ |
| $1 /{ }^{\prime \prime}$ | RF $163-3$ |
| $3 /{ }^{\prime \prime}$ | RF $163-4$ |
| $1 / 2^{\prime \prime}$ | RF $163-5$ |

Tube Benders

## External Type

Ideal for bending copper and other tubing by hand to any desired shape without collapsing the tube.

| No. | For Size Tubing |
| :---: | :---: |
| RF 60 | $1 / 4^{\prime \prime}$ |
| RF 61 | $5 / 6^{\prime \prime}$ |
| RF 62 | $3 / 8^{\prime \prime}$ |
| RF 63 | $1 / 1^{\prime \prime}$ |
| RF 64 | $1 / 2^{\prime \prime}$ |
| RF 65 | $5 / 8^{\prime \prime}$ |

No. RF 66 Tube Bender Set
The set consists of one each of the above sizes.


## RF 97 Midget Tube Cutter

$1 / 8^{\prime \prime}$ to $5 / 8^{\prime \prime}$
For close
quarter
work.

## Service Station Tools

## No. 7550 12-Volt Tester

## \& Probe

Cat yot Meata

A must for finding shorts and testing circuits. Ground the alligator clip and pierce wire insulation with probe. Plastic handle will light up when circuit is complete. No light and the trouble is located.

## B683 Fuse and Spark Plug Terminal Pliers



## CF 143 Inspection Mirror Flexible Head



## Merchandised Knives

For cutting shims, gaskets, packing, top and upholstery materials, this Knife is unsurpassed. Five razor edge blades fit inside the handle, and a new one can be inserted in an instant. Our heavy duty unit.

No. 199 SK Shop Knife


No. 207
Retractable Scraper
No. 208 Blades For 207 Scroper



No. X010 Oil Filter Wrench


Adjusts to most size oil filters. Small and compact for close areas. Lightweight but very sturdy.

No. 522 Angle Nose Battery Plier


The handiest plier ever designed for battery work. Chrome plated and $8^{\prime \prime}$ long.

No. 524 Battery Terminal Spreader


## No. 1000 Battery

 Terminal PullerA sure grip miniature puller which will remove the most stubborn battery cable terminal. This puller has been redesigned to fit over the large type battery cable terminals on late model cars.


## BTC 2 Battery Post

and Terminal Cleaner


No. 170 Nut Breaker


Free frozen and rusted nuts in seconds. Range from 0 to $/ 16$ ".


No. $\mathbf{P} 317$ Shock Link and Stabilizer Link Separator. This tool is a forked wedge type separator, used to free the tapered links of shock absorber or the stabilizer from their mountings. Length $16^{\prime \prime}$. Jaw opening 5/8".

No. P 319 Pitman Arm Separator. This tool is a forked wedge type separator used to dismantle the Pitman arm assembly. Jaw opening $11 / 8 \prime$ and overall length 111/2".

## Wheel Wrenches and Tire Tools

309 Four Way Wheel Wrench


PH 19 Tire and Rim Hammer

Drop forged from high grade steel and carefully heat treated. This tire and rim hammer is specially designed for all types of work where such a tool is needed. Full polished head with strong hickory handle. Weight, 3 lbs.

No. M6T Spoon Type Tire Iron

Straight pattern for trucks and passenger cars. Length $23^{\prime \prime}$.

No. M 7 T Spoon Type Tire Iron

Curved pattern for trucks and passenger cars. Length $225 / 8^{\prime \prime}$.

P 5430 Flip Socket $3 / 4^{\prime \prime} \times 13 / 16^{\prime \prime}$ $1 / 2^{\prime \prime}$ Drive 6 Point


1258 WR
$11 /{ }^{\prime \prime}$ Hex. x $13 / 16^{\prime \prime}$ Sq., $141 / 2^{\prime \prime}$ long. 1258 B Cross bar fits 1258 WR.

Four Way Wheel Wrenches


These Wrenches are forged from high quality carbon steel and are nickel plated.

| No. | Wrench Size | Length |
| :---: | :---: | :---: |
| - 307 -310 -321 | $3 / 4 \prime \prime$ | $\begin{aligned} & 143 / 4 " \\ & 171 / "^{\prime \prime} \\ & 213 / 4 " \end{aligned}$ |
| No. 321 Heavy Duty 5/8" RD Hi Carbon Stock |  |  |
| - M 340 <br> -W 303S | Metric for European cars <br> $17 \mathrm{MM}, 19 \mathrm{MM}, 22 \mathrm{MM}, 13 / 16^{\prime \prime}$ <br> $143 / 4^{\prime \prime}$ |  |
| - W 304 | British Cars 3/8 B.S.W. //16"B.S.W. <br> $3 / 4$ " screw driver for removing hub caps <br> British 5/" | 143/4" |
|  | B.S.W., 1/2' B.S.W. ${ }^{\text {B/ }}$ B.S.W., 176 | 143/4" |


| No. | Wrench Sizes | Length |
| :---: | :---: | :---: |
| - 309 | Truck 4-way with forged openings 1" Hex.; 11/16" Hex. and 7/8" Hex.; 11/4" Hex. and $13 / 16^{\prime \prime}$ Sq.; 11/2" Hex. Two arms incorporate double size openings, thus providing six socket sizes. Arms $1^{\prime \prime}$ round $\times 25^{\prime \prime}$ long. | $25^{\prime \prime}$ |

The 308 wheel wrench is forged from molybdenum steel and is nickel plated.

| No. | Wrench Sizes | Length |
| :---: | :---: | :---: |
| 308 | $3 / 4^{\prime \prime}, 3 / 4^{\prime \prime}, 13 / 16^{\prime \prime}, 7 / 8^{\prime \prime}$ | $18^{\prime \prime}$ |

No. 1258 WR Truck Rim Wrench


Wrenches are forged from high quality steel. Black finished. 1258 B Cross bar fits 1258 WR

## Valve Tools



Has many outstanding features to make it the most popular universal valve lifter on the market to-day. It will service any " L " Head motor having the cylinders in one line and straight stemmed valves. It is so small that it gets in all the tight corners with ease. It has no catches to wear and slip; no pinching of fingers, etc. Not necessary to remove manifolds when you use a Gray stubby.


## No. CF 4

## Valve Spring Compressor

## Small Series

Services all Chevrolet and many low horse-power motors including some of British make. Also well adapted to many " L " head motors when manifolds are removed. Heavy bar-steel with adjustable jaws, oil tempered. Screw adjustment for plunger depth. Safety over-center lock allows both hands free when spring is raised. Throat $43 / 4^{\prime \prime} \times 61 / 4^{\prime \prime}$.

## No. CF 7 Split Lock Replacer



The No. CF 7 is the ideal tool for replacing all types of split keys on Chrysler, Dodge, DeSoto, Plymouth, Studebaker, and other late model motors. The sliding base prevents the keys from dropping into the motor. Simple to load; easy to operate: much safer than grease.

No. • 9842 Hydraulic Valve Lifter


This puller easily removes seized lifters from straight or 'V' engines. Contains 2 adaptors for larger or small engines. A must for any repair shop.


Height $101 / 4 "$; Width $91 / 2^{\prime \prime}$; Handles $11 / \mathrm{s}^{\prime \prime}$ to $13 / 4^{\prime \prime}$ spring.
Equipped with CF 21 Straight Jaws. CF 22 Offset Jaws are included in package.

Recommended for all Valve-in-Head Automotive Motors and L-Head Motors which allow working room for the tool. Truly a one-man tool. Easy control. Designed for use with Split Lock Replacer CF 7 for easy and sure handling of Locks without a fumble.

## No. CF 16 Valve Lifter

Same as CF 11, but larger.
Height $101 / 2^{\prime \prime}$; Width $12^{\prime \prime}$. Takes $1^{\prime \prime}$ to $21 / 2^{\prime \prime}$ dia. springs. Equipped with CF 21, CF 22 B, and CF 23 jaws. Especially designed for trucks, buses, tractors, heavy duty motors, also for marine and diesel engines.

Extra Jaws and Adapter for CF 11


CF 21 Straight Jaws - $11 / 8^{\prime \prime}$ to $13 / 4$ " capacity. Designed to work with CF 7 Lock Replacer.

CF 22 Offset Jaws $15 /{ }^{\prime \prime}$ to $13 / 4^{\prime \prime}$ capacity. Designed to work with CF 7 where Tappet Chamber opening is limited.

CF 23 Large Straight Jaws - $15 / 8^{\prime \prime}$ to $23 / 4^{\prime \prime}$ capacity. Designed for use on Heavy Duty Equipment. Contains large spring openings.

CF 26 Special Adapter - Designed for Cadillac Cars, and Minneapolis-Moline Tractors. Used with CF 11, equipped with CF 21 Straight Jaws and CF 7 for replacement of the Valve Locks.

## Piston and Special Tools

## Piston Ring Compressors



These improved ring compressors are a definite improvement over anything previoustly offered. The self locking pawl will hold the compression band at any point, and in addition a double tension band is provided. This band of high grade spring steel will reduce breakage to a minimum, and will eliminate flare out at the bottom of the compressor. The handle is made of $1 / 4^{\prime \prime}$ stock and can easily be replaced if lost. The beaded edge will prevent the compressor from entering the cylinder. These tools are made in four sizes, as follows:
No. RC 1 for cars $211^{\prime \prime}$ to $5^{\prime \prime}$ - Non-locking.
No. RC 2 for cars $21 / 8^{\prime \prime}$ to $5^{\prime \prime}$ - Self-locking.
No. RC 3 for trucks and Diesel engines with range of $31 / 2^{\prime \prime}$ to $7^{\prime \prime}$.
Nos. RC 2 and RC 3 Piston Ring Compressors have been modified so that they can be used on late model Chevrolet and Ford products.
No. RC 4 same as RC 3 but $61 / 2^{\prime \prime}$ in height with four tension bands.
No. RC 5 midget ring compressor for British and other foreign cars, also ideal for small gas engines capacity $11 / 2^{\prime \prime}$ to $3^{\prime \prime}$.


Handy and practical tool, which should be in every garage. The cutters can be instantly adjusted to the desired size and will handle pistons from the smallest to $6^{\prime \prime}$ O.D. Where a groove has to be deepened for the installation of inner rings this tool is ideal.
No. 223 - Cutter sizes, $3 / 32^{\prime \prime}$, $1 / 8^{\prime \prime}$, 5/3 $2^{\prime \prime}$, $3 / 16^{\prime \prime}$.
No. 564 - Cutter sizes: $3 / 32^{\prime \prime} \& 5 / 64^{\prime \prime}$, and one each $5 / 32^{\prime \prime} \& 3 / 16^{\prime \prime}$.
Parts Not Interchangeable

## 838 Carbon Scraper



No. 840 Wire Scratch Brush


A good quality brush for removing dirt, grease and carbon.

## Preset Tension Glaze Breaker

Model CF 63

Capacity $2^{\prime \prime}$ to $51 / 4^{\prime \prime}$ Dia. Replacement Hones (Set of 3) 2" Long CF-63-1 Medium Grit CF-63-14 Fine Grit

## Preset Tension Glaze Breaker

Model CF 61
Capacity 2" to $5 \frac{1}{4}{ }^{\prime \prime}$ Dia. Replacement Hones (Set of 3) 3" Long CF-61-12S Medium Grit CF-61-14S Fine Grit


## Preset Large Capacity Glaze Breaker

Model CF 62


Capacity 2" to 7' $^{\prime \prime}$ Dia.
Replacement Hones (Set of 3) 4" Long CF-62-12S Medium Grit CF-62-14S Fine Grit



Individual Reamer Specifications

| Reamers | Size | Length Overall |  | No. of Blades | Pilots |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Reamer | Blades |  |  |
| 8 A reamer | $1 / 4$ ", to $9 / 32^{\prime \prime}$ | 31/2"' | 15/8", | 4 | 395 shank |
| 7 A " | 993" ${ }^{\prime \prime}$ to $5 / 16^{\prime \prime}$ | $33 / 4$ " | 15/8" | 4 | 396 " |
| 6 A | $5116^{\prime \prime}$ to $11 / 32^{\prime \prime}$ | 4" | 15/8" | 4 | 397 |
| 5 A | $11 / 32$ " to $3 / 8^{\prime \prime}$ | 41/4" | 17/8" | 4 | 398 |
| 4 A | $3 / 8$ " to $13 / 33^{\prime \prime}$ | 41/2" | 17/8" | 4 | 399 |
| 3 A | $13 / 32$ " to $716{ }^{\prime \prime}$ | 43/4" | 17/8" | 6 | 400 |
| 2 A | 7/16" ${ }^{\prime \prime}$ to $15 / 32$ " | $5^{\prime \prime}$ | 17/8" | 6 | 401 |
| A | $15 / 32^{\prime \prime}$, to $17 / 32^{\prime \prime}$ | 51/4" | 2" | 6 | A pilot |
| B | $1732^{\prime \prime}$, to $19 / 32^{\prime \prime}$ | $53 / 4 \prime \prime$ | 2"' | 6 | B " |
| C | 1932 " to $21 / 32^{\prime \prime}$ | 61/4" | 21/4" | 7 | C " |
| D | $21 / 32^{\prime \prime}$, to $23 / 33^{\prime \prime}$ ", | 63/4" | 21/4"' | 7 | D " |
| E | $23 / 32$ ", to $25 / 32^{\prime \prime}$ | 71/4" | 21/2"' | 7 | E " |
| F | $25 / 32^{\prime \prime}$ to $27 / 32^{\prime \prime}$ | 73/4" | 21/2" | 7 | F " |
| G | $27 / 32^{\prime \prime}$ to $15 / 16^{\prime \prime}$ " | 81/4" | $3^{\prime \prime}$ | 7 | G " |
| H | 15/16" 1 to 11/1" | 83/4" | 3"' | 7 | H |
| I | 1116" 1 to $13 / 16^{\prime \prime}$ " | $10^{\prime \prime}$ | 31/2" | 7 | 1 " |
| J | $13 / 16^{\prime \prime}$ to $111 / 32^{\prime \prime}$ | 11" | 31/2"' | 7 | J |
| K | $11 / 32^{\prime \prime}$, to $117 / 32^{\prime \prime}$ | 12" | $4^{\prime \prime}$ | 7 | K |
| L | $11 / 32^{\prime \prime}$, to $125 / 32^{\prime \prime}$ | 13" ${ }^{\prime \prime}$ | 4"' | 7 | L |
| M | $12533{ }^{\prime \prime}$, to $27 / 33^{\prime \prime}$, | 15"' | $51 / 4 \prime \prime$ $53 / \prime$ | 7 | M |
| N | $2732 \prime \prime \prime$ to $23 / 4$ " | 17" | $53 / 4 \prime \prime \prime$ | 7 | N " |
| 0 | $23 / 4$ " to $3^{11 / 32}{ }^{\prime \prime}$ | 19" | 61/2" | 7 | 0 |

NOTE-When ordering pilots only, simply specify the reamer size. Shanks used for reamers 8 A to 2 A .

NOTE--The following repair parts are available for each size of reamer. from 8 A to O .

> - complete sets of spare blades

- nut
- collar
repair parts are described and listed in the price list under the corresponding reamer number.


Set No. LO3 (with Pilots Attached)
No. LO 1 Set contains 8 reamers without pilots from $15 / 32^{\prime \prime}$ to $11 / 16^{\prime \prime}$ (sizes A-H) in wooden box. As illustrated.

No. LO 3 set contains the same reamers as LO 1 Set, but with pilots attached.

No. LO 173

## Universal Cylinder Ridge Reamers

No. LO 173 SET AS ILLUSTRATED contains two sets of three blades with strips to ream $29 / 16^{\prime \prime}$ to $33 / 4^{\prime \prime}$ and $33 / 4^{\prime \prime}$ to $47 / 8$ ", one set of three filler strips and operating knob in metal box.
No. LO 171 Set for small bore cars, contains one set of three blades with strips, cutting range $23 / 16^{\prime \prime}$ to $33 / 16^{\prime \prime}$, one set of three filler strips and operating knob, in metal box.
No. LO 173A Set contains one set of three blades with strips, cutting range $2 \% / 10^{\prime \prime}$ to $3 \frac{3}{4}{ }^{\prime \prime}$, one set of three filler strips and operating knob, in metal box.
No. LO 173B Set contains one set of three blades with strips, cutting range $3^{\prime \prime}$ to $43 / /_{6}^{\prime \prime}$, one set of three filler strips and operating knob, in metal box.

## PARTS FOR ABOVE SETS

No. LO 180
No. LO 181
No. LO 182
No. LO 183
Set of three blades with strips, cutting range $23 / 1{ }^{\prime \prime}$ to $33 /{ }^{\prime \prime}$ ", for number LO 171 ridge reamer.
Set of three blades with strips, cutting range $29 / 1{ }^{\prime \prime}$ to $33 / 4$ ", for number LO 173 and LO 173A ridge reamer. Set of three blades with strips, cutting range $33 / 4^{\prime \prime}$ to $47 /{ }^{\prime \prime}$, for number LO 173 ridge reamer. Set of three blades with strips, cutting range $3^{\prime \prime}$ to $43 / 16^{\prime \prime}$, for number LO $173 B$ ridge reamer. Set of three blade strips, and 3 screws, give cutting range.
Set of three filler strips, and 3 screws, give cutting range.
No. LO 197 Operating Knob.

## TRUCK, TRACTOR AND BUS SIZE

No. LO 174 Set contains one of three blades with strips, cutting range $47 / 8{ }^{\prime \prime}$ to $67 / 1{ }^{\prime \prime}$, one set, of 3 filler strips and operating knob, in cardboard box.

## PARTS FOR NUMBER LO 174 SET ONLY

No. LO 178 Set of three blades with strips, cutting range $47 /{ }^{\prime \prime}$ to $67 / 16^{\prime \prime}$, for number LO 174 ridge reamer.
No. LO 179 Special set of 3 blades with strips, cutting range $67 / 6^{\prime \prime}$ to $8^{\prime \prime}$, for number LO 174 ridge reamer.
Set of three blade strips and three screws, give cutting range.
Set of three filler strips and three screws, give cutting range.
No. LO 198 Operating Knob.

## Pullers



No. 1001 with $1_{2}^{\prime \prime}$ screw $6^{\prime \prime}$ long, is ideal for small work. Maximum reach is $31 / 2^{\prime \prime}$; maximum spread is 6 ".

1001


No. 1002 is "an all purpose" tool which will handle a wide range of work. Screw is 9 " long by $11 / 16^{\prime \prime}$ diameter. Maximum reach is $51 / 2^{\prime \prime}$; maximum spread is $8^{\prime \prime}$.


No. 1003 is a H. D. Puller with $13 / 6_{6}^{\prime \prime}$ diameter, $12^{\prime \prime}$ long screw. Maximum reach is $9^{\prime \prime}$; maximum spread is $12^{\prime \prime}$.

This Puller is designed to pull Balancers, Vibration Dampers, Pulleys or any gear with tapped holes. The four slots in the yoke, allows the use of this Tool in either two or three hole applications. The Floating Swivel prevents damage to shaft ends. Included are the necessary Side Screws - (3) $3 / 8-24 \times 2^{\prime \prime}-$ (3) $5 / 6-$ $18 \times 2^{\prime \prime}-(2) 3 / 8-16 \times 4^{\prime \prime}$. This versatile Puller is a "Must" for every good mechanic. Range - $13 / 8$ " $-39 / 6$ ".


The best, simplest, and sturdiest wheel puller ever developed. Has tremendous power, yet cannot bend or otherwise damage the wheel lugs.

With the three regular legs, shown above, it works perfectly on over $98 \%$ of all makes of cars.

The screw has very fine threads, which give it an extremely powerful leverage. In addition, the puller is equipped with a sliding bearing through which the driving screw rides. This feature makes it possible for the operator to attach the puller to the studs, then draw the screw tightly against the axle and with a light blow of a hammer, remove the most stubborn hub. Extends to include 8 inch bolt circle.

Another feature is the floating cap on the screw end. This centers on the axle, avoiding injury to either axle or puller.

The driving end is forged with a hexagon head which firmly holds the driving handle. The handle driving bar can be eliminated if it is desired to turn the screw up with an ordinary socket or open end wrench.

## No. 827 L — Extra Leg for Above

No. 827 H Handle


Designed especially for No. 827 Wheel Puller. Drop forged and heat treated.

P200 Harmonic Balancer Puller


## Pullers

## No. P 501 Bearing Splitter



Designed for removing Generator Gears, Bearings, Bearing Cones and similar parts, where ordinary Puller Jaws will not reach. The knife edges are flush on one side to get behind the work for easy pulling. No. P309, Timing Gear Puller, can be used in conjunction with this tool, also No. 1001, Gear Puller. Capacity $0^{\prime \prime}-2 \frac{1 / 4 " \text { ". }}{}$

No. P 503 Bearing Splitter
Capacity 0 " $41 / 4^{\prime \prime}$


No. P 305
Two-Arm Gear Puller
This two-arm Puller has a wide range of applications in the service shop.

Maximum reach is $23 / 8$ inches in depth.
Maximum spread is $31 / 2$ inches.


No. P 500 Sliding Hammer Puller

Especially designed for rear axle work, for pulling bearing races and grease seals, this Sliding Hammer Puller makes easy work for the mechanic. The 2 Lb. Sliding Hammer, removes the tightest gear up to $4^{\prime \prime}$ in diameter. The Jaws can be reversed for pulling bearings. Cadmium plated. Shipping Weight 8 Lbs.

## No. P 190 Pitman Arm Puller



This Universal Pitman Arm Puller eliminates the necessity for the mechanic to have several different types of Pullers to do this job. This tool can be used to remove the Pitman Arms from the majority of cars and light trucks. The Yoke is forged from a High Grade Alloy Steel, heat treated to withstand the toughest service. The Heavy Duty Center Screw allows enough pressure to be applied to remove even the most stubborn of Pitman Arms.


No. P 309

No. P 309
Timing Gear Puller
This is a general purpose puller for removing timing gears, fan assemblies, and other parts which are tapped to receive cap screws $3 / 8$ inch in diameter.

Parts for the No. P 309 Puller.
P 309-1..... Center Block, 51/2" long.
P 309-2 ... Forcing Screw, 11 $1 / 2$ " long. P 309-3.... Cap Screws (2), $3 / 8^{\prime \prime}$.


This tool can be used as a regular Wheel Puller or Hub Puller, as well as a Flange Type Puller. The bolt circles range is from $41 / 2^{\prime \prime}$ to $512^{\prime \prime}$, which covers all major cars and small trucks with flange type axles. The four slots in the adaptor allow this tool to be used on either 4,5 or 6 Bolt or Stud designs. The Extra Heavy Sliding Hammer is what mechanics have been asking for and will get in this rugged Puller.

P 498 Pilot Bearing Puller


This Bearing Puller can be used for removing Sleeve Type Bearings from $1 / 2^{\prime \prime}$ to $1 / 2^{\prime \prime}$ inside diameter on flywheels, pumps and generators. Turn the handle for quick adjustment and the center rod spreads the Alloy Steel Jaws for a tight fit inside the bearing.

## Pullers

## PO 11 Reversible Gear Puller

This puller is made in the same general design as the PO12 and PO12L except smaller. The 3 Jaws provide a 3 point grip and extra power many times needed to pull gears, pulleys and other parts. Specifications:

| Reach | $31 / 2^{\prime \prime}$ |
| :---: | :---: |
| Spread | 0" |
| Center | 5/8- |

Part numbers are as follows:

| PO 11-1......... Hub | PO 11-4 $\ldots \ldots$. Bolt |
| :--- | :--- |
| PO 11-2.......... Screw | PO 11-5 ........ Arm 31/2" reach |
| PO 11-3......... Link | PO 11-6 ........ Nut |



## PO 12 Reversible Gear Puller

The PO12 is a rugged puller that will handle the majority of pulling jobs in the automotive service shops. The 3 Jaws provide a 3 point grip and extra power many times needed to pull gears, pulleys and other parts. Specifications:

| Reach | 51/2" |
| :---: | :---: |
| Spread. | 0" $8^{\prime \prime}$ |
| Centre Screw | $3 / 4{ }^{\prime \prime}-16 \times 83 / 4^{\prime \prime}$ |

Part numbers are as follows:


## PO 12 L Reversible Gear Puller

Same as PO12 above except that it has longer adjustable arms. The 3 Jaws provide a 3 point grip and extra power many times needed to pull gears, pulleys and other parts. Specifications:


Part numbers are as follows:
PO 12-1 ..... Hub
PO 12-2 .......... Screw
PO 12-3 ......... Link
PO 12-4 $\ldots \ldots .$. Bolt
PO 12 L-5 $\ldots \ldots$. Arm $81 / 2^{\prime \prime}$ reach
PO 12-6 $\ldots \ldots .$. Nut



No. P 187

## Steering Wheeler Puller

This tool is designed to pull steering wheels on all major automobiles. The Cross Arm is 4" long, made of 1" Square Steel. The Center Screw is $5 / 8-18 \times 4$ ". Only one Swivel, is necessary on this tool. The Floating Swivel is recessed in the end so as not to damage the spring tip con-
nected to the horn wires on Buick and Cadillac. 3 Sets of Side Screws are provided - $3 / 8-16,5 / 16-18$ and $5 / 16-24$ - long enough to fit the new style steering wheel on Oldsmobile. Cadmium plated. Shipping Weight $13 / 4 \mathrm{lbs}$.

## Hammers



No. 212 Series - Ball Pein Hammers
Gray-Tool No. 212 Series Ball Pein Hammers are drop forged from selected steel and carefully heat treated. The handles are of straight grain hickory, securely fastened in the head with special iron $S$ wedge. The No. 212 Series have head, pein and sides polished, with the balance finished in black enamel.

| No. | Weight | No. | Weight | No. | Weight |
| :--- | :--- | :---: | :---: | :---: | :---: |
| 212 | 3 l lbs. | 212 E | $11 / 2 \mathrm{lbs}$. | 212 I | 8 oz. |
| 212 A | $21 / 2 \mathrm{bs}$. | 212 G | 1 lb. | 212 J | 6 oz. |
| 212 C | 2 lbs. | 212 H | $3 / 4 \mathrm{lb}$. | 212 K | 4 oz. |

## No. 33 Garden City Brand Hammer

"Garden City" brand nail hammers enjoy very popular acceptance. The heads and claws are carefully hardened and full polished except front and back of throat, neek and under claws which are black enamel. Single locking wedge in clear finished quality hickory handle.

| No. | Face | Weight | Handle Length |
| :---: | :---: | :---: | :---: |
| 33 | Bell | $\mathbf{1} \mathrm{lb}$. | $123 / 4^{\prime \prime}$ |

## PH Series - Soft Face Hammers

Gray-Tool Soft Face Hammers are useful for fitting piston pins and similar jobs, and for body and fender work. The tips are of a tough, amber-colored composition material that will not mar a finely finished surface. New tip may be attached by turning the old one loose with a pipe wrench and pressing on the new tip. The hammer is properly balanced and the hickory handle is securely locked in the hand.

- Tips not guaranteed.

| No. | Weight | Face Diameter |
| :---: | :---: | :---: |
| PH 18 | $1 / 4 \mathrm{lb}$. | $7 /{ }^{\prime \prime}$ |
| PH 15 | $1 / 2 \mathrm{lb}$. | $17 / 3^{\prime \prime}$ |
| PH 20 | $1^{\prime 2} \mathrm{lb}$. | $11 / 32^{\prime \prime}$ |

Extra tips are available for all PH Series hammers. To order, specify hammer number for tip required.

## PH 193 lb . Sledge Hammer

Drop forged from high grade steel and carefully heat treated. This is specially designed for all types of work where such a tool is needed. Head fully
polished with hickory handle. Weight, 3 lbs. Length overall, $16^{\prime \prime}$.
No. PH 19

## No. PH 5 M Multi-Head Hammer

This hammer is designed so that the changing of faces is a matter of seconds. The head is made of forged steel carefully machined, so that the heads are locked firmly in position. The hammer comes complete with five tips: Pyralin, copper, lead, rubber and composition.
No. PH 5 M - Complete with tips.
No. PHP - Extra Pyralin tip.
No. PHB - Extra Composition tip.
No. PHR - Extra Rubber tip.
No. PHL - Extra Lead tip.
No. PHC - Extra Copper tip.


PH 30


PH 22


PH 24

PH 25


PH 32

## No. PH 30 Fender Mallet

Has rubber composition head. It will not shatter, chip or split. Equipped with hickory handle. Head $21 / 2^{\prime \prime}$ diameter, $41 / 2^{\prime \prime}$ long. Handle $131 / 2^{\prime \prime}$ long. Weight $13 / 4 \mathrm{lbs}$.

## No. PH 22 Bumping Hammer

This hammer has polished faces and black body. Head $4^{\prime \prime}$ long. Round face, $11 / 4^{\prime \prime}$ in diameter. Square face, $11 / \mathrm{B}^{\prime \prime}$ square. Overall length, $13^{\prime \prime}$. Weight, 14 ozs .

## No. PH 23 Light Bumping Hammer

A light weight finishing hammer with head having polished faces and black body. Head, $4^{\prime \prime}$ long. Round face, $11 / 4^{\prime \prime}$ in diameter. Square face, $1^{\prime \prime}$ square. Overall length, $13^{\prime \prime}$. Weight, 9 ozs.

## No. PH 24 Dinging Hammer

A finishing hammer with faces crowned and polished; body of head finished in black. Head $6^{\prime \prime}$ long. Large face, $15 / 8^{\prime \prime}$ in diameter. Small face, $11 / 4^{\prime \prime}$ in diameter. Overall length, $13^{\prime \prime}$. Weight, 13 ozs.

## No. PH 25 Light Dinging Hammer

A sturdily made, light weight finishing hammer. Hcad $61 / 2^{\prime \prime}$ long. Large face, $11_{4}^{\prime \prime \prime}$ square. Small face, $11 / 6^{\prime \prime}$ in diameter. Overall length, $13^{\prime \prime}$. Weight, 10 ozs .

## No. PH 26 Special Bumping Hammer

The head is drop forged with bullet shaped end which makes it easy to remove small dents. Face of the head is polished with body finished in black. Strong hickory handle. Head, $4^{\prime \prime}$ long, $15 /$ /' $^{\prime \prime}$ diameter. Weight, 7 ozs. Overall length $13^{\prime \prime}$.

## No. PH 32 Hammer

The new ph 32 hammer redesigned with a spiked tip, is drop forged from selected steel and carefully heat treated. The handles are of the highest quality, straight grain hickory and fastened with special " S " wedges. Face is polished, body finished black. Head, $63 / 4^{\prime \prime}$. Face $11 / 8^{\prime \prime}$ in diameter. Overall length $14^{\prime \prime}$.

## No. PH 27 Upholsters' Magnetic Hammer

Head is polished all over and one end is magnetized. Head is $51 / 2^{\prime \prime}$ long. Overall length, $11^{\prime \prime}$. Weight, 7 ozs .

# Dolly Blocks, Door Handle Tools and Spoons 

General Purpose Dolly Block


No. F6 - Full surface ground and polished. Weight, 3 lbs . Drop forged steel.

No. F 2 Toe Dolly Block


Drop forged of selected steel and full surface ground and polished. Thickness, 1". Weight, 21/2 lbs. Length, $43 / 4^{\prime \prime}$. Width, $21 / 4^{\prime \prime}$.

No. F 3 Heel Dolly Block


Drop forged of steel most suitable for this type of tool. Full surface ground and polished. Length, $21 / 2^{\prime \prime}$. Width, $31 / \mathrm{s}^{\prime \prime}$. Thickness, $11 / 2^{\prime \prime}$. Weight, $23 / 4 \mathrm{lbs}$.

Large Hand Hold Dolly


No. F12 - Working surfaces are ground and polished. Weight, $31 / 2$ lbs.


No. F16 - Used in general body repair work and on turret tops. Forged of selected steel with polished working surfaces. Blade $21 / 4^{\prime \prime}$ wide, $61 / 4^{\prime \prime}$ long. Overall length, $113 / 4^{\prime \prime}$. Weight, $1 \frac{1}{2}$ lbs.

Wedge Dolly Block


No. F5 - Especially designed for work on turret tops. Length, $51 / 4^{\prime \prime}$. Width, $21 / 2$ ". Weight, $21 / 2$ lbs.

Bar Dolly


No. F4 - Drop forged steel and full surface ground and polished. Weight, $33 / 4 \mathrm{lbs}$. Length, $41 / 2^{\prime \prime}$. Width, 2 ". Thickness 15/8".

## Budd Dolly Block



No. F7 - Drop forged of selected steel. Weight, 3 lbs.

Small Hand Dolly Block


No. F10 - Working surfaces are ground and polished. Weight, 21/4 lbs.

- No. DHT 125 Lock Clip

- No. DHT 126

Door Handle Clip Remover Used on G.M.C. and Ford Cars.


- No. DHT 115
G.M. Ford Lock Clip Tool

- No. DHT 100 Lock Clip Plier

- No. DHT 118

Chrysler Door Handle Tool


Special Door Panel Spoon


No. F15 - Blade ground and polished. Dimensions of blade: $21 / 4^{\prime \prime}$ wide, $5^{\prime \prime}$ long. Overall length, $103 / 4^{\prime \prime}$. Weight, $11 / 2 \mathrm{lbs}$.

## No. BS 70 Set <br> TECHNICAL SCHOOL BODY SHOP STUDENT SET <br> Contains 70 Pieces - Packed in 2221 Box



Door Handle Tools

| No. | Description |
| :---: | :---: |
| DHT100 | Lock Clip Plier |
| DHT115 | G.M. |
| DHTR Ford Lock Clip Tool |  |
| DHT18 | Chryser Door Hondle Tool |
| DHT126 | Clip Remover Tool |

Allen Wrenches - W 9 LR Set, 9 pieces.
Dolly Blocks - No. F 3, No. F 6.
Body File - No. F 25.
Adjustoble File Holder - No. F 31.

## CONTENTS

$3 / 8^{\prime \prime}$ Drive

| No. | Description |  |  | No. | Description |
| :---: | :---: | :---: | :---: | :---: | :---: |
| TH10 | 56" | S.H. | Socket | T3 | "U" Joint |
| TH12 | 3/8" | " | " | T31 | 3" Extension |
| TH14 | 7/1" | " | " | T4 | 6" Extension |
| TH16 | 1/2" | " | " | T30 | 9" Flex Hondle |
| TH18 | \%16" | " | " | T32 | 6" Cross Bor |
| TH20 | 5/8" | " | " | T36 | 73/4" Sliding T-Hondle |
| TH22 | 11/6" | " | " |  | Hondle |
| TH24 | $3 / 4$ " | " | " | T42 | 61/8" Screwdriver Type |

Combination Wrenches

| No. | Description |
| :---: | :---: |
| 3112 | 3/8" - 5" Long |
| 3114 | "/16-53/8' Long |
| 3116 | $1 / 2^{\prime \prime}$ - $6^{\prime \prime}$ Long |
| 3118 | 9/18 - 63/4" Long |
| 3120 | 5/9" - 73/4" Long |
| 3122 | 11/6" - 85/8" Lang |
| 3124 | $3 / 4 \prime \prime$ - 91/2" Long |
| 3128 | 复"-11" Long |
| 3132 | $1^{\prime \prime}$ - 131/2" Long |


| No. | Description |
| :---: | :---: |
| S04 | $4^{\prime \prime}$ - 5/1" ${ }^{\prime \prime}$ Tip - 71/2" Long |
| S06 | $6^{\prime \prime}$ - $7 / 16^{\prime \prime}$ Tip - 101/4"Long |
| S08 | $8^{\prime \prime}$ - $12^{\prime \prime}$ " Tip - 121/2" Long |
| SO12 | 12" - 916" Tip - 163/4" Long |
| CP1 | $3^{\prime \prime}$ Fits 2,3,4 Phillips Screws |
| ${ }^{\text {CP2 }}$ | $4^{\prime \prime}$ Fits 5 to 9 Phillips Screws |
| TP3 | 3/8" Dr. Screw Driver |
| 2612SD | Phillips Offset |


| Hammers |  |
| :---: | :---: |
| No. | Description |
| 212C | 2 lb .8 oll Pin |
| PH22 | 14 oz. 8umping Hommer |
| PH26 | 7 oz . 8 umping Hommer |
| PH30 | $13 / 4 \mathrm{lb}$. Rubber Mollet |

Punches and Chisels

| No. | Description |
| :---: | :---: |
| C2 | $3 / 8{ }^{* *}$ stock-1/2" Cut-51/2" Long |
| C5 | $3 / 4{ }^{\prime \prime}$ " stock-7/8" Cut-71/2" Long |
| C23 | 3/8" stock-1/8" Point - 6" Long |
| C24 | 3/8", stock - $316{ }^{\prime \prime}$ " Point - 67/" Long |
| C28 | 3/8", stock - $1 / 8$ " Point - 5" Long |
| C29 | 3/8", stock-3/1" Point - 51/2" Long |
| C34 | 3/8" stock-Pin Point - $51 / 4$ " Long |

Pliers

| No. | Description |
| :--- | :--- |
| VG10R | $10^{\prime \prime \prime}$ Vise Grip |
| 9R | $9^{\prime \prime}$ Welding Clomp Plier |
| 8654 | $7^{\prime \prime}$ Long Nose Plier |
| B310 | $10^{\prime \prime}$ Combinotion Plier |

Snips

| No. | Description |
| :--- | :--- |
| 852 | $93 / 4^{\prime \prime}$ Body Snips |
| S410 | $10^{\prime \prime}$ Stroight Pottern Snips |
| 2682 | $8^{\prime \prime \prime}$ to $12^{\prime \prime}$ Adj. Tubulor frome |
|  | Hocksow |

Adjustable Wrench

| No. | Description |  |
| :---: | :---: | :---: |
| ML8 | $8^{\prime \prime}$ Adj. Wrench |  |

## Flat File Holder



No. F 24 - An inexpensive wooden file holder for the 14 " body file.

## Flexible Body File



No. F25 - The application of the milling cutter principle to body files has produced a file that will last longer and do better work. Each tooth is individually milled, and the $U$ shaped goove provides maximum clearance allowing the ribbon like shavings to be cleared quickly and easily. The elimination of packing and loading is a feature of this new file, and the teeth will maintain their razor like sharpness several times as long as the old V tooth file. Overall length, $14^{\prime \prime}$.

## File and Holder Set

No. F26-For the shop using the F 25 14" file, this combination will prove to be excellent value. Six general purpose $14^{\prime \prime}$ files and a No. F 24 Holder for the ordinary cost of the files.


No. F 31 - Can be used on $14^{\prime \prime}$ files. This holder is strongly made, yet is light and handy. Can be adjusted for curving the file either outward or inward.

Hand Seamers No. 535


An excellent tool for hand seaming. Overall length $8^{\prime \prime}$, working surfaces $1^{\prime \prime} \times 3^{1 / 2 \prime} 2^{\prime \prime}$, weight 1 lb . Drop-forged from Alloy Steel. Fully heat treated.

## Body Snips



Compound leverage design provides strong, yet free and easy cutting power on all types of tough sheet metal including stainless steel and duralumin. The drop-forged steel jaws are serrated to provide a sure grip on the work. They are spring-actuated. The jaws are $21 / 2^{\prime \prime}$ long, handles $63 / \mathrm{m}^{\prime \prime}$. The overall length is $93 / 4^{\prime \prime}$.

No. B52- Universal, straight cut.
No. B52L - Left hand cut.
No. B52R - Right hand cut.

## Snips: Straight Pattern



These snips are of excellent quality. They are made from a one-piece drop forging, precision ground and hand polished. The cutting edges are keen and will give long and satisfactory service.

| New No. | Length | Cut |
| :---: | :---: | :---: |
| S 47 | $7^{\prime \prime}$ | $13 / 4^{\prime \prime}$ |
| S 410 | $10^{\prime \prime}$ | $21 / 2^{\prime \prime}$ |
| S 412 | $12^{\prime \prime}$ | $3^{\prime \prime}$ |



The combination circle pattern snip is an all-purpose snip. It will cut either right or left-hand direction. This extra slim snip is ideal for garage mechanics, as well as metal workers.

| 77 D | $7^{\prime \prime}$ | $13 / 4^{\prime \prime}$ |
| :---: | :---: | :---: |
| 107 D | $10^{\prime \prime}$ | $214^{\prime \prime}$ |
| 127 D | $12^{\prime \prime}$ | $3^{\prime \prime}$ |



11/4" cut-61/2" Long.

## Brake Tools

New Improved Brake Adjusting Tool For use on all late model cars No. 2564


Blade size $.530^{\prime \prime}$, length $77 / 8^{\prime \prime}$, made from alloy steel.

## Nos. 2566 and 2566 A Brake Tools م

For making brake adjustments on cars equipped with Bendix brakes. Forged from alloy steel.
No. 2566 has $1 / 2^{\prime \prime}$ blades, is $81 / 2^{\prime \prime}$ long.
No. 2566 A has $1 / 2^{\prime \prime}$ blades with one straight end, is $9^{\prime \prime}$ long.

No. LO 925 Brake Cylinder Hone


No. LO 925 - Range $3 / 4^{\prime \prime}$ to $17 / 8^{\prime \prime}$, contains four bodies three sets of three blades (small, medium and large), with abrasives mounted, eighteen extra abrasives (nine coarse and nine fine). Special $1^{\prime \prime}$ cup screw to be used on medium size body when honing step bore cylinders and flexible driving shaft adaptable to $1 / 4^{\prime \prime}$ or $1 / 2^{\prime \prime}$ electric drill, put up in neat metal box.

Individual parts for LO 925 set:
LO 899 C - Coarse hone abrasives ( 1 dozen).
Lo 899 F - Fine hone abrasives ( 1 dozen).
LO 920 - Flexible driving shaft.
No. 550 - Caliper Piston Pliers for Disc Brakes
Works on single and four piston calipers
Hardened steel jaws
firmly clamp to inside
of piston for quick,
easy removal.


Jaws are adjustable to two positions for small diameter pistons and large single caliper pistons.

## No. J89 Brake Spring Tool



For Bendix and other brakes using a spring that hooks over a post. Socket end is slipped over post and turned to receive spring into eccentric grooved lip. Spring then lifted off with the tool. Easily replaced over post with other end of tool.

## No. J90 Brake Spring Tool

This handy tool is made for cars with brake springs that hook into a hole in brake shoe. Knob end is made of alloy steel for extra long life and is used to remove brake springs easily. Other end which is tapered and correctly curved makes an easy job of inserting spring. Tool does not touch the brake lining.

## No. 531 Brake Spring Compressor



Place tapered end of tool on steel cup, then place index finger of other hand on head of pin located on rear of back-up plate. Push in on tool until arrow head of pin is uncovered. Make one quarter turn - release pressure and the cup comes off the spring. Fits all regular and flat cups.

$$
\text { No. } 525-13^{\prime \prime} \text { Brake Spring Plier }
$$



An extra slim, light brake plier designed for use on all passenger cars and light trucks.

No. 534 Truck Brake Spring Plier


Forged, heavy duty truck brake spring plier. Heavy plating for a rust resistant finish.

## Additional needed Disc Brake Tools

No. CF63 Disc Brake Cylinder Hone pg. 71
Micrometer, Sensory, Standard Torque Wrenches pgs. $53,54,55$.

## Refrigeration Tools • Reamers - Thread Restorers



This type of ratchet, made with four different size ratchet openings, is forged of alloy Steel with plated finish. The ratchet is fully enclosed to keep out all dust and dirt.

| No. | Ratchet <br> Opening <br> Square | Handle <br> Opening <br> Square | Handle <br> Opening <br> Hexagon |  |
| :---: | :---: | :---: | :---: | :---: |
|  | $3 / 10^{\prime \prime}$ | $3 / 16^{\prime \prime} \& 1 / 4^{\prime \prime}$ | $1 / 2^{\prime \prime}$ | $6^{\prime \prime}$ |
| RF 22 | $1 / 4^{\prime \prime}$ | $3 / 6^{\prime \prime} \& 1 / 4^{\prime \prime}$ | $1 / 2^{\prime \prime}$ | $6^{\prime \prime}$ |
| RF 23 | $5 / 16^{\prime \prime}$ | $3 / 6^{\prime \prime} \& 5 / 16^{\prime \prime}$ | $112^{\prime \prime}$ | $6^{\prime \prime}$ |
| RF 25 | $3 / 8^{\prime \prime}$ | $3 / 16^{\prime \prime} \& 1 / 4^{\prime \prime}$ | $1 / 2^{\prime \prime}$ | $6^{\prime \prime}$ |

Reversible Ratchet No. RF 45A


The ratchet opening is $1 / 4^{\prime \prime}$ square, the openings in the handle are $3 / 16^{\prime \prime}$ and $1 / 4^{\prime \prime}$ square and $1 / 2^{\prime \prime}$ hexagon socket. The tool is drop forged and plated. Overall length 6 ".

1/4" Male Drive


For use with any ratchet handle having $1 / 4$ " opening and Gray ratchets Nos. RF 22 and RF 45A..

| No. | Size <br> Square Opening | Outside Diameter |  | Length |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Nose | Shank |  |
| RF 2 | $3 / 16$ | 27/64" | $1 / 2{ }^{\prime \prime}$ | 15/16 |
| RF 5 | $7 / 32$ | $1 / 2^{\prime \prime}$ | $1 / 2^{\prime \prime}$ | 15/16 |
| RF 3 | $1 / 4{ }^{\prime \prime}$ | $1 / 2$ " | $1 / 2^{\prime \prime}$ | 15/6" |
| RF 4 | 5/16 | 9/10" | 9/10 | 15/10" |

Flare Nut Wrenches available on page 40 of this catalogue Tube Cutting and Flaring Tools available on page 67 of this catalogue

## Reamers

Very useful for removing burrs, enlarging and aligning holes in sheet metal, aluminum, etc., also handy for starting taps. Constructed with round shanks making them adaptable for use with an electric drill by removing T-handle.

Sufficiently oversize so they may be resharpened and still maintain full range.

> No. 57 Reamer
> Size $7 / 16^{\prime \prime}-1^{\prime \prime} 5^{3 / 4 "}$ Long

No. 56 Reamer
Size $1 / 8^{\prime \prime}-1 / 2^{\prime \prime} 55 / \mathbf{z}^{\prime \prime}$ Long

## EXTERNAL THREAD RESTORER


#### Abstract

Available separately these Thread Restorers are fast cutting and do a quick job in restoring damaged threads. For use with standard design wrenches or sockets. Ideal for use in limited space. Will not harm good threads but designed to remove only the damaged portion.


## 7 pcs. Set F-7 TR

S.A.E. $1 / 4^{\prime \prime}$ to $5 / 8{ }^{\prime \prime}$

7 pes. Set C-7 TR U.S.S. $1 / 4^{\prime \prime}$ to $5 / 8{ }^{\prime \prime}$

\%/8


These file type Thread Restorers save time and trouble when you have to contend with damaged threads. A few strokes across battered threads produce a true new thread - nut will then go on easily. Add a pair to your service kit.

## 

No. TR 2T - has 8 thread sizes - $9,10,12,16,20,27$, 28 and 32 threads to the inch.

## (1)

No. TR 1 T - has 8 thread sizes - $11,12,13,14,16,18$, 20 and 24 threads to the inch.

## Tool Boxes

Box No. 2203


This is a very popular small tool box for the mechanic and car owner, the Tray has three sections for small tools, etc. Has a snap-lock which avoids spilling and accommodates padlock. Size- $14^{\prime \prime} \times 6^{\prime \prime} \times 5^{\prime \prime}$.

A Heavy Duty Tool Box that is very popular with mechanics for medium sized tool sets and is ideal for service calls, etc., as it has a large tote tray.

Made from heavy gauge steel with strong handle. Padlock hasp and finished in red.
Size $-19^{\prime \prime} \times 7^{\prime \prime} \times 7^{\prime \prime}$. Weight 8 lbs.
Used in Set Numbers: TG34, TG48, 1504.

Box No. 2219


Heavy gauge high quality box, reinforced handy steel handle and heavy draw pull catch. Size $19^{\prime \prime} \times 7^{\prime \prime} \times 7^{\prime \prime}$. Approx. 8 lbs. Used in Set Numbers: SW44, SW35.

Box No. 2209


An exceptional value in a large size low priced tool box. The lift out tray gives full access to the extra long and roomy interior. Sections are designed to hold both small parts and long tools. Small wonder it is such a popular box with mechanics and service men.
Size - $19^{\prime \prime} \times 6^{\prime \prime} \times 61 / 2^{\prime \prime}$.


Box has full length tote tray and piano hinge. Ideal for small tools, parts and tackle. Size $14^{\prime \prime} \times 6^{\prime \prime}$ X $61 / 2^{\prime \prime}$.

Box No. 2210
Heavy duty box ideal for industrial use.


Used in Set Numbers:
HD12, HD25, HD21, HD15, M9341.

## Tool Chest and Roller Cabinets



## No. 2250 Master Chest

The 2250 Master Chest is made of heavy gauge sheet metal with baked red enamel finish. The foldover front which covers the drawers has a built-in lock with key. Outside dimen.: $26^{\prime \prime} \times 12^{\prime \prime} \times 14^{\prime \prime}$. 2 drawers: 11 " x $51 / 2$ " x 2 ". 1 drawer: $11^{\prime \prime} \times 123 / 4$ x 2 ".

2 drawers: 11 " x $23^{\prime \prime} \times 2$ " 1 drawer: $11^{\prime \prime} \times 23^{\prime \prime} \times 3$ ". Individual cartons. Approx. ship wt. 65 lbs.

Tote Tray. Divided with two socket and one general tool compartments.

## Model 2260 Roller Cabinet

3 large drawers plus additional drawer channels. By sliding in extra drawers it becomes the most complete cabinet available. Carries up to 7 drawers in 5 arrangements. Must be ordered as illustrated.

Outside dimen.: $18^{\prime \prime} \times 27^{\prime \prime} \times 34^{\prime \prime}$. 3 drawers: $16^{1 / 2}{ }^{\prime \prime} \times 24^{\prime \prime} \times 4$ ". Lower space: 17" x 27 " x 12". Individual cartons. Approx. ship. wt. 100 lbs.


## No. 2270 Heavy Duty Chest

Has 12 extra deep drawers. Outside dimen.: $26^{\prime \prime} \times 17^{\prime \prime} \times 19$ ". 6 drawers: $151 / 2^{\prime \prime} \times 41 / 2^{\prime \prime} \times 2^{\prime \prime}$. 2 drawers: $151 / 2$ " $x$ 5 $1 / 2$ " x 3 ". 1 drawer: $15 \frac{1 / 2 "}{} \times 51 / 2$ " $\times 61 / 4$ ".

2 drawers: $151 /{ }^{\prime \prime}$ " $\times 23^{\prime \prime} \times 2$ " 1 drawer: $151 / 2$ " x 23 " x 3 ". Individual cartons. Approx. ship. wt. 112 lbs.


## Tool Boxes and Drawer Inserts

## No. 2221 Box

Heavy duty mechanics tool box has two large drawers and full size tote tray, continuous hinge on both lid and front cover which covers and locks drawers.

21 " $\times 81 / 2$ " $\times 93 / 4$ ", weight 28 lbs.


No. 2262 Drawer Sets


No. 2263
Approx. dimen. $24^{\prime \prime} \times 161_{2}^{\prime \prime} \times 4^{\prime \prime}$. Weight 10 lbs .


Sold in pairs only
Approx. dimen. $24^{\prime \prime} \times 16 \frac{1}{2} 2^{\prime \prime} \times 2^{\prime \prime}$, weight 15 Ibs. for $2260-13^{\prime \prime}$ sq.

## No. 2220 Box

Large heavy duty box complete with tote tray that has a socket divider. Draw pull catches with built-in padlock hasp.
$20^{\prime \prime} \times 81 / 2^{\prime \prime} \times 91 / 2^{\prime \prime}$, weight 13 lbs.


Used in Set Numbers FB19

## No. 2206 Tote Tray

An extra strong tote tray for garage use. $191 / 2 " \times 73 / 4 \times 133 / 4$, weight $31 / 2 \mathrm{lbs}$.


Drawer Divider Sets
Contain one long and two short and three clips.
Strong shelf attachment collapsible, with mounting cap screws,


For 2250 order No. 2251
For 2260 order No. 2261
For 2270 order No. 2271


## Additional Drawers for No. 2260 Cabinet

An exclusive feature of the 2260 Roller Cabinet allows flexible use of space and increased drawer capacity as needed. By adding the accessories illustrated above you can make up all these combinations:

A standard 2260 Roller Cabinet with the addition of one pair of No. 2262 drawers.


A standard 2260 Roller Cabinet with the addition of one pair of No. 2262 drawers and one No. 2263 drawer.


A standard 2260 Roller Cabinet with the addition of two
No. 2263
drawers plus one No. 2264 end shelf, (up).


## Small Tool Boxes and Socket Trays



Box No. 2201 Size - $203 / 8^{\prime \prime} \times 63 / 8$ x $21 / 2^{\prime \prime}$.
USED IN SET NUMBERS: M9387, M9124, TG27, TG21, SW20, SW23, SW15, 1503.


Box No. 2281 Size - $7^{\prime \prime} \times 31 / 4^{\prime \prime} \times 11 / 4^{\prime \prime}$.
Our sturdy Mini Model. Baked red enamel finish with Gray decal.
USED IN SET NUMBERS: M9140, M9142, M9383, SVS11, SVS15, VS100, VS120, TUJ6, TUJ12.


Box No. 2282 Size - $91 / 2^{\prime \prime} \times 4^{\prime \prime} \times 1 \frac{1}{4^{\prime \prime}}$.
The versatile mid model. Red epoxy finish. Accenting decal.
USED IN SET NUMBERS: M9372, S111, S113, TG10, VS180.


Box No. 2284 Size - $17^{\prime \prime} \times 512^{\prime \prime} \times 13 / 4^{\prime \prime}$.
A good capacity model. Attractively finished in red with accenting decal.
USED IN SET NUMBERS: 1502, M250 M9112, S114, SW12.


Tool Toter No. $2290-19^{\prime \prime} \times 7^{\prime \prime} \times 7^{\prime \prime}$.
Made of heavy gauge steel this toter keeps tools and parts neatly in order. Handy sliding tray. A great item for servicemen. Makes carrying tools to the job site easy. Finished in attractive blue and orange enamel.


Box No. 2285 Size - $11^{\prime \prime} \times 51 / 2^{\prime \prime} \times 134^{\prime \prime}$.
The handy model. Finished in red with accenting Gray decal.
USED IN SET NUMBERS: 1501, MT130, S120, TG15, VS250.


## Repair Parts

## All Repair Kits and Necessary Part Numbers are Itemized in the Price List.



## RATCHET REPAIR KITS

For numbers: 1597, 4254, 5297, 5297 L, S 57, SV 25, T 57, V 25
Kit Contents-gear, pawl, ball, spring, shift lever with washer \& screw, two plate screws.
for numbers: 67\%, T 37 above parts plus one screw and spring for flex joint.

## ADJUSTABLE WRENCHES

for numbers: BW 4, BW 6, BW 8, BW 10, BW 12, BW 15, BW 18 and AC 124 ML 6, ML 8, ML 10, ML 12
Kit Contents-pin, knurl, spring.
Parts-jaws ordered separately as per size.

## PULLERS

Parts-Body, Centre Screws, Links, nuts \& bolts, misc.

## FLEX HANDLE REPAIR KITS

For numbers: 652, 653, $653 \mathrm{~L}, 1553, \mathrm{~S} 30$, SV 26, T 30, V 26
Kit Contents-head, screw, washer.
for number: 4288.
Parts: head kit (screw, washer).

## TORQUE WRENCHES

Return to Gray warehouses for repairs.

## HAMMER HANDLES

\begin{tabular}{|c|c|c|c|}
\hline Handle No. \& Hammer No. \& Handle No. \& Hammer No. <br>
\hline HH 1 \& $$
\begin{aligned}
& 15 \mathrm{G}, 212 \mathrm{~K}, \\
& 312 \mathrm{~K}
\end{aligned}
$$ \& HH11 \& $$
\begin{aligned}
& 2 \text { A, 33, 191, } \\
& 199
\end{aligned}
$$ <br>
\hline HH 2 \& $$
\begin{aligned}
& 15 \mathrm{~F}, 2121, \\
& 212 \mathrm{~J}, 3121, \\
& 312 \mathrm{~J}, \mathrm{PH} 22, \\
& \text { PH 23, PH 24, } \\
& \text { PH 25, PH } 26
\end{aligned}
$$ \& HH 11A \& 91,391
$124,220,224$ <br>
\hline HH 3 \& $15 \mathrm{C}, 17 \mathrm{~A}$, $17 \mathrm{~B}, 19 \mathrm{~A}$, $19 \mathrm{~B}, 212 \mathrm{G}$, 212 H, 312 G, 312 H, PH 32 \& HH 14 \& PH 18

PH 15 <br>
\hline HH 4 \& $212 \mathrm{E}, 312 \mathrm{E}$ \& HH 16 \& PH 20 <br>
\hline HH 5 \& $212 \mathrm{C}, 312 \mathrm{C}$ \& HH 17 \& PH 27 <br>
\hline HH 6 \& 212 A, 312 A \& \& <br>
\hline HH 7 \& 212, 312 \& HH 18 \& PH 30 <br>

\hline HH 8 \& $$
\begin{aligned}
& 10 \mathrm{~A}, 10 \mathrm{~B}, \\
& \mathrm{PH} 19
\end{aligned}
$$ \& \& <br>

\hline \& \& HH 19 \& PH 5 M <br>
\hline
\end{tabular}

## REGULAR HEX AND PHILIPS HEAD SOCKETS

for numbers: 734, DW 12 L, 16 L, 18 L, 206, MTW 4, MTW 5, MTW 6, MTW 8, MTW 10, TP 1, TP 2, TP 3, TP 4, TW 4, TW 5, TW 6, TW 7, TW 8, TW 10, TW 12, V 34 Kit Contents-Bit, Screw.

For numbers: 709, 1509, 4295,
MTF series ST 3, STU series T 3, TU series
Kit Contents-2 screws, 2 washers.
Parts-Male End, Centre Block, Female End.

Since 1912

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